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THIRD BIENNIAL REPORT

State Museum Natural History,
SPRINGFIELD, ILLINOIS.

BUREAU OF LABOR STATISTICS

OF

ILLINOIS.

1884.

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832704

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STATE OF ILLINOIS.
OFFICE OF THE BUREAU OF LABOR STATISTICS.
SPRINGFIELD, ILL., NOV. 1, 1884.

HONORABLE JOHN M. HAMILTON, *Governor of Illinois*:

SIR: In compliance with the act of the Thirty-first General Assembly creating this Bureau, the Commissioners herewith submit to you for transmission to the Thirty-fourth General Assembly their Third Biennial Report.

Very respectfully,

CHARLES H. DEERE, President.
JOSEPH C. SNOW,
THOMAS LLOYD,
GEORGE T. BROWN,
A. W. KINGSLAND, Commissioners.

JOHN S. LORD, Secretary.

1901-1902
1903-1904

**State Museum Natural History,
SPRINGFIELD, ILLINOIS.**

INDEX TO SUBJECTS.

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INTRODUCTION.

This volume constitutes the Third Biennial Report of the Bureau of Labor Statistics of Illinois, and its contents are presented in Three Parts, each of which is devoted to some special line of statistical enquiry on the general topic of industrial affairs in Illinois, and the relations which the different classes engaged in them sustain to each other and to the State.

Part I consists of an investigation designed to ascertain what proportion of the results of manual labor in manufactures accrues to the proprietor for his hazzard, his sagacity, and the use of his capital, and what proportion falls to the lot of the workman for his skill and industry.

It is recognized that this is an undertaking the most complex and difficult, and the calculations made in this study of the subject are submitted rather as an index of the facts, than as a conclusive demonstration.

In pursuing this enquiry, two series of tables have been compiled from a wide range of data,—the one relating to Wages and the Hours of Labor of workingmen in certain industries, assumed to be representative of all the industries of the State, and the other series devoted to a computation of the probable Profits and Losses resulting from the pursuit of those industries to those who have projected and conducted them.

In the latter we also attempt to show what percentage of the value of the product of the several manufacturing establishments of the State was consumed in the purchase of materials, what proportion in the payment of wages, and of interest and expenses, and what remains, if anything, to the manufacturer after deducting these. As a complement to this showing, we compute the value of the product of each employé, his average earnings in producing the same, and the profit or loss realized by the employer upon that product.

Both series of tables are deduced from the schedules of the United States Census Bureau, and in order to prepare them, copies of the schedules relating to Illinois were taken by this Bureau from the files in the census office in Washington by consent of the Superintendent.

However, the results of our tabulations may be regarded, the premises upon which they are based can hardly be challenged, as the schedules referred to constitute the only compendium of exact statistical information as to all the manufactures of the State, which has ever been compiled. We are thus afforded the broadest possible basis upon which to construct tables of real significance and value.

As a supplement to this exhibit for Illinois, we also introduce tables presenting some Industrial Comparisons between Illinois and Massachusetts, affording an interesting view of relative conditions in the two States.

Part II presents the results of special investigations made by this Bureau into the economical and social condition of the industrial classes in Illinois.

In order to discover and show this condition, we have procured, classified and tabulated the actual experiences of two thousand one hundred and twenty-nine families of workingmen, engaged in one hundred and sixty-three kinds of employment, and living in fifty-three of the cities and towns of the State. Our investigations have embraced not only the facts in regard to their financial status, but also a consideration of the manner of living and home surroundings which characterize the different classes in different places.

The results are presented in classified and tabular exhibits designed to bring out the salient features of the situation as it really exists, and in form suitable for reference or comparison.

This Part is subdivided into six chapters. The first is devoted to an examination of the character of the returns upon which the deductions are made, in order to arrive at the measure of their value as truly representative of the wage classes of the State at large; also to such classification and arrangement of them as best to present the race characteristics, and the influences of occupations and location upon the general welfare of the classes considered.

The second chapter is made up of the detailed financial statements of each of the 2,129 families, arranged by occupations, but showing also the place of residence and nationality of each, and the degree of success which has rewarded their efforts to support

themselves by their wages. These specific details are subsequently summarized in more concise tables presenting the general results obtained in regard to conditions in different places, trades and races. The tables throughout are accompanied by such textual comments as are deemed necessary, and final summaries are made of the conclusions to which they point.

In the third chapter will be found an analysis of the sources of the family income, for the purpose of ascertaining what proportion of it is derived solely from the labor of the head of the family, and what from the labor of wives and children. It is thus shown how far the labor of the average workingman in this State must be supplemented by that of his family in order that they all may live. This also involves a consideration of the status of children and of the proportion of them who are compelled to work at an age when they should be at school or at play; as well as the amount of their contribution to the family fund.

The succeeding chapter consists of an analysis of the average expenditures of families dependent upon the wages of manual labor, showing the proportion of earnings absorbed by food, shelter and clothing; the facts in regard to house ownership and rents; the elements of miscellaneous expenditure, including that for maintaining protective organizations, life insurance, etc.

This is supplemented by retail price-lists of such commodities as enter into the maintenance of workingmen's families; also by a consideration of the average hours of daily labor, and the average working time and idleness in different occupations.

The concluding chapter is devoted to individual statements of earnings, expenses and condition, accompanied by observations made and reported by the agents of the Bureau.

This completes the presentation of facts and conclusions developed by this enquiry as to real and relative conditions among those who work for wages in this State.

Part III.—In the third and final division of the report will be found comprehensive statistics of two special industries,—Coal Mining, and the Manufacture of Drain Tile, in Illinois. The material aspect of these important industries is presented in statistical detail, and in the same connection there is some delineation of the social and economic phases of life which obtain among the army of workers engaged in them.

Finally we present a report on the model industrial community at Pullman, in this State.

This is an expression of the conclusions reached by a number of representatives from the various State Bureaus of Labor Statistics, after an investigation extending through several days. These gentlemen assembled at Pullman for the purpose of making a careful study of the economic experiment there in progress, in behalf of the employes of that extensive manufacturing establishment. We take pleasure in calling attention to the results of their observations, and in commending to manufacturers and employers everywhere this striking illustration of beneficent enterprise in the interest of working people.

UNIV. OF
CALIFORNIA

PART I.

Work, Wages and Profits

IN THE

MANUFACTURING INDUSTRIES OF ILLINOIS.

30 1000
1000 1000

CHAPTER I.

TIME AND WAGES.

Among the problems which in modern society especially involve the prosperity and perpetuity of communities, there is none commanding more general and careful consideration at the present time than that of the wise adjustment of the rewards of labor between the mechanic, on the one hand, with his industry and implements, and the capitalist on the other with his resources and his directing mind. Yet this issue is not new nor local in its development, for wherever civilized man is found, and the diversity of human condition consequent upon civilization is developed, there more or less conflict between these two important elements of society will be found to exist. But while this fact and its significance are equally recognized, the difficulties which are everywhere encountered in the effort to reconcile the interests of these classes are so subtle, that even men of the greatest abilities propose and urge the most diverse measures to overcome them.

The mal-adjustment of the profits of labor between those who produce, and those who have the product, is apparently the resultant of a thousand factors, and if we review the long procession of skillful theorists who have sought the remedy we shall find that each in his turn has ascribed the preponderating influence to a different factor.

The following pages do not embrace the discussion of any theories, nor invade the province of the theorists. They present simply certain facts exhibited in a statistical form, that have reference to the wages of the workingman and the profits of the employer. It has always been more or less common for the former to declare that he is poorly paid, and for the latter to protest that he is doing business at a loss. These tables are an attempt to show for the leading industries of the State of Illinois, how much of truth there is in these assertions.

A similar exhibit for the industries of Massachusetts was made by Hon. Carroll D. Wright, in his report for 1883 as Chief of the Bureau of Statistics of Labor. As far as is known the work of Mr. Wright was the first statistical exposition ever made of the comparative increment of reward resulting to employer and employed, having as its basis many thousand of individual cases distributed throughout a community intense with industrial activity. Writers have so usually confined themselves to denunciation and invective on one side, to depreciation and excuse on the other, or to generalizations based upon doubtful data, isolated facts and partial knowledge, that the scientific method pursued by him is likely to stimulate all thoughtful minds to the collection and careful study of facts as the preliminary absolutely necessary to any correct thinking on this question. The tables following are prepared similarly to those of Mr. Wright, and taken in connection with them will furnish opportunity for a comparative study of industrial successes and failures that cannot fail to be interesting and instructive. It is to be hoped that other States through their statistical bureaus may be led to take up this work, to the end that a complete body of like facts may be obtained for the whole country. We shall then have the material at hand for a scientific investigation of the relations existing between the workingman and the capitalist, and may be able to arrive at the laws governing them. We are scarcely likely to discover these by the empirical methods hitherto so much in vogue. The same method must be pursued in a social investigation of this sort as in physical research. The specialist must be called in first for the patient and laborious accumulation of facts, then when these have become a comprehensive mass, the discovering mind of genius will take them and write out for us the laws which underlie and regulate industrial prosperity.

The data upon which the following tables are founded are drawn from the United States Census Schedules for Illinois for 1880, transcripts of which were taken by this Bureau at the census office by permission of Hon. C. W. Seaton, Superintendent of Census, for the special purpose of reaching the figures necessary to compute and compile the percentages shown. The undertaking involved a vast number of careful and laborious calculations, all of which were made in duplicate to insure verification, and the result is believed to possess a high degree of accuracy.

These schedules exhibit the following facts relating to the census year, for each individual establishment having an annual product valued at \$500 or more: the character of the business carried on; the capital invested; the average number of hands employed, as, males above 16 years old, females above 15, children and youth; the number of hours in the ordinary day of labor from May to November, and from November to May; the average day's wages for a skilled mechanic, also for an ordinary laborer; the total amount paid in wages; the number of months running on full time, on three-fourths time, on two-thirds time, on half time, and idle; the value of the materials used; and the value of the product. Other facts are shown not necessary to our purpose, and therefore not enumerated here.

An examination of the census returns shows that Illinois is credited with 14,549 manufacturing establishments. This number does not include breweries, distilleries, petroleum works, print works and salt works. These industries were in the hands of special agents, and were not reported to the census office by individual establishments. Throughout this chapter the above number, 14,549, is referred to as the entire number of the State's industrial establishments. If we study the returns from these, we shall find that a very small proportion of the whole, numerically, did a very large proportion of the whole production. For the better illustration of this, attention is directed to the two tables following: Manufacturing Establishments by Industries, and Capital, Wages, etc., for 1,666 Establishments paying \$5,000 or more each in Annual Wages. In these tables we find that for the 14,549 establishments there was capital invested to the amount of \$140,552,066; hands employed to the number of 144,727; wages paid to the amount of \$57,429,085; materials used to the value of \$289,843,507; and a product achieved valued at \$414,864,673.

Among these 14,549 establishments are 1,666, or 11+ per cent. of the whole number, which have capital invested amounting to \$93,381,754, hands employed numbering 95,912, a wage-roll reaching \$41,201,529, which paid for materials \$219,511,348, and have a product valued at \$303,882,634. In other words, 11+ per cent. of all the manufacturing establishments employ 66+ per cent. of the capital, furnish work to 66+ per cent. of the employes, pay out 71+ per cent. of the wages, use 75+ per cent. of the materials, and turn out 73+ per cent. of the product of the whole State. An

exhibit, therefore, of the condition as to wages, etc., of the employes in these 1,666 establishments, and of the profits of the employers, is practically an exhibit in these respects of nearly three-fourths of the manufacturing interests of the State. The tables hereinafter presented are accordingly made up from the reports of these 1,666 establishments, each one of which paid \$5,000 or more in wages during the census year. The entire number in the State which paid this stated sum in wages is 1,848. Of this number, 182 are excluded from the presentation. Some of them are so omitted because the given industry is represented by but a single establishment in the State, and the publication in such case might lead to identification, which has been carefully avoided for obvious reasons. Others, such as painting, are excluded because they do not have all the elements necessary in a presentation of manufactures.

MANUFACTURING ESTABLISHMENTS BY INDUSTRIES.

Industries.	NUMBER OF ESTABLISHMENTS.		NUMBER OF EMPLOYES.	
	In the State	Used in this presentation	In the State	In the establishments used in this presentation
Agricultural implements	220	74	7,300	6,802
Boots and shoes	1,117	80	3,443	2,064
Boxes	52	32	2,018	2,007
Brick	616	51	5,903	1,874
Brooms and brushes	88	8	593	308
Buildings	844	107	6,274	3,704
Carriages and wagons	1,099	83	4,739	2,497
Chemical preparations	52	11	1,403	784
Cigars	532	39	2,829	1,252
Clocks and watches	82	5	1,767	1,659
Clothing	451	120	14,950	12,569
Cooking and heating apparatus	a 80	20	a 2,000	1,119
Cured and packed meats	143	54	10,948	10,212
Drugs and medicines	50	9	518	191
Flour and meal	1,024	97	4,900	1,838
Food preparations	674	56	4,527	2,647
Furniture	497	118	7,110	5,951
Leather	775	39	3,430	1,839
Lumber	705	46	5,079	1,769
Machines and machinery	319	87	6,220	3,756
Malt	22	9	258	199
Metals and metallic goods	2,719	197	16,065	14,949
Musical instruments and materials	23	10	375	329
Paints and oils	33	16	653	389
Paper	24	22	777	750
Photographs and other likenesses	92	9	258	99
Printing and publishing	317	123	5,652	4,660
Railroad and other cars and materials	b 7	14	b 1,086	1,578
Soaps	35	10	582	456
Stone	188	31	1,577	1,034

Manufacturing Establishments by Industries—Continued.

Industries.	NUMBER OF ESTABLISHMENTS.		NUMBER OF EMPLOYEES.	
	In the State	Used in this production	In the State	In the establishments used in this presentation
Tobacco	10	7	1,048	1,041
Vessels, sails, etc.	23	11	465	401
Wooden goods	502	105	6,873	4,374
Woolen goods	53	16	1,042	811
Totals	c 13,563	1,666	132,782	95,912

- a. Partially estimated, this industry sometimes being inseparably combined with others.
b. Additional establishments with their employees are inseparably combined with other industries.
c. In the United States census volume of manufactures, the industries classified in this column under 34 titles are found under many. In reducing them to the limits of this classification, it was sometimes rather difficult to determine to which title to assign certain establishments. Hence, the segregation of the 13,563 industries can not be considered absolutely exact, though nearly so. Such an exact segregation did not appear to be of sufficient importance to warrant the labor of reclassifying from the transcripts of schedules. These remarks, of course, do not apply to the 1,666 establishments in the second column where exactness of classification is aimed at.

**CAPITAL, WAGES, ETC., FOR 1,666 MANUFACTURING ESTABLISHMENTS
PAYING \$5,000 OR MORE EACH, IN ANNUAL WAGES.**

Industries.	Capital.	Wages.	Stock.	Product.
Agricultural implements	\$10,737,200	\$3,060,618	\$6,461,957	\$12,878,973
Boots and shoes	1,722,500	771,737	1,756,179	3,113,973
Boxes	910,526	762,442	2,709,307	4,030,781
Brick	917,498	620,123	317,601	1,288,835
Brooms and brushes	222,000	102,406	229,922	397,000
Buildings	1,026,150	1,798,715	3,493,860	5,935,850
Carriages and wagons	2,700,000	1,143,099	1,824,668	3,988,931
Chemical preparations	995,750	225,370	2,733,748	5,054,266
Cigars	432,066	509,048	815,657	1,725,283
Clocks and watches	2,018,827	808,974	239,857	1,088,621
Clothing	7,919,375	4,578,139	15,061,519	25,751,007
Cooking and heating apparatus	1,490,400	592,532	991,113	2,223,880
Cured and packed meats	10,691,350	3,939,411	81,385,177	94,077,269
Drugs and medicines	231,000	82,754	376,000	688,000
Flour and meal	5,551,892	975,151	20,741,850	23,019,098
Food preparations	2,961,550	1,025,600	11,782,122	14,271,027
Furniture	3,577,600	2,052,286	3,867,677	8,116,355
Leather	2,921,128	868,615	6,172,412	8,039,394
Lumber	2,335,970	560,343	3,642,052	4,084,140
Machines and machinery	4,543,000	1,927,512	3,795,610	7,630,506
Malt	815,000	93,849	1,416,420	1,724,300
Metals and metallic goods	14,415,501	6,804,591	27,199,052	41,833,333
Musical instruments and materials	242,000	198,527	308,028	631,250
Paints and oils	1,120,000	207,005	3,659,147	4,740,900
Paper	1,228,000	288,424	880,488	1,654,098
Photographs and other likenesses	152,500	62,544	62,000	216,000
Printing and publishing	3,774,300	2,508,523	2,915,297	7,570,846
Railroad and other cars and materials	1,133,500	729,698	3,440,415	4,515,002
Soaps	1,125,000	177,902	2,786,100	3,236,500
Stone	500,000	491,152	634,475	1,355,689
Tobacco	1,127,000	353,200	2,646,987	4,181,075
Vessels, sails, etc.	428,000	210,835	426,800	727,333
Wooden goods	2,301,328	1,754,291	3,868,167	6,080,667
Woolen goods	1,104,753	264,163	1,099,665	1,386,502
Totals (1,666 establishments)	\$93,381,754	\$41,201,529	\$219,511,347	\$504,882,634
Totals (the State, 14,549 establishments)	140,652,066	57,429,085	289,843,907	414,864,673
Per cent. of 1,666 establishments of 14,549	66+	71+	75+	73+

By reference to the first table—Manufacturing Establishments by Industries—it will be seen that the 1,666 establishments embrace 34 industries. The industry having the least number of establishments is clocks and watches, with 5; and the one with the greatest number, metals and metallic goods, with 197. As before noted, these establishments employ in all 95,912 persons, including men, women, children and youth. There are in the State 13,563 establishments belonging to these 34 industries, employing 132,782 persons. We find, then, in Illinois, out of 14,549 manufacturing establishments, with industrial employes aggregating 144,727, that 13,563 establishments, with employes numbering 132,782, belong to these 34 industries. We also find that 12+ per cent. (1,666) of these 13,563 establishments employ 72+ per cent. (95,912) of the entire number of persons (132,782) following these industries in the State. The point to be considered now is whether the conditions obtaining in 34 industries, which include 93+ per cent. of all the manufacturing establishments in the State, and 91+ per cent. of all employes, may not be held as true of the State's entire industries; and yet, further, whether the conclusion that 1,666 of these establishments, or 12+ per cent., with 95,912 employes or 72+ per cent. of the whole number, may not be safely assumed to represent truly the entire manufacturing interests of the State. Without entering into this speculation, or considering what might be said for or against the assumption, but believing that every one must concede the selected number to be at least largely *indicative*, we present the first table deduced from the official reports of 1,666 manufacturers, covering the general subject of Time and Wages of Employes. This exhibits the average number of employes, the average day's wages for skilled mechanics and for ordinary laborers, the daily hours of labor, and the months of employment and idleness.

A marginal number is used to indicate each establishment, and as the same order is observed, and the same numbers used in a subsequent table devoted to the subject of Profits and Earnings, a complete statistical unity may be secured for any one or all establishments, by uniting the presentations of the two tables.

TIME AND WAGES.

AGRICULTURAL IMPLEMENTS.

No. of months employed in each establishment.	HOURS OF LABOR.			AVERAGE DAY'S WAGES FOR		No. of months employed in each establishment.	TIME Full time..
	May to Nov.	Nov. to May.	Yearly Average.	Skilled Mechanics	Ordinary Laborers.		
12	10	8	9	\$2 00	\$1 50	12	12
12	10	10	10	2 00	1 20	12	7
12	10	10	10	2 00	1 25	12	12
12	10	8	9	2 50	1 20	9	6
12	10	10	10	1 15	1 40	12	12
11	10	10	10	1 75	1 25	12	11
11	10	10	10	1 75	1 25	11	11
8	10	10	10	2 00	1 50	8	8
12	10	10	10	2 25	1 30	12	12
12	10	10	10	2 00	1 25	12	12
12	10	10	10	2 25	1 15	12	12
12	10	10	10	2 00	1 25	12	10
8	10	9 1/2	9 1/2	2 25	1 06	12	12
8	10	9 1/2	9 1/2	2 25	1 25	12	8
12	10	10	10	2 50	1 50	12	12
10	10	10	10	2 50	1 75	10	10
12	10	10	10	2 50	1 25	12	12
10	10	10	10	2 50	1 36	10	10
6	10	9	9 1/2	2 50	1 25	6	6
12	10	10	10	2 25	1 50	12	12
11	10	10	10	2 25	1 26	11	11
11	10	10	10	2 25	1 25	11	11
9	10	10	10	2 25	1 25	9	9
6	10	8	8 1/2	2 25	1 25	6	6
12	10	10	10	2 25	1 50	12	12
12	10	10	10	2 25	1 50	12	12
12	10	10	10	2 25	1 25	12	12
12	10	10	10	2 25	2 00	12	12
6	10	10	10	2 50	1 50	6	6
7	10	8	9	2 50	1 25	7	7
11	10	10	10	2 50	1 37	11	11
9	10	9	9 1/2	2 50	1 50	9	9
11	10	10	10	2 50	1 25	11	11
12	10	8	9	2 50	1 25	12	8
8	10	9	9 1/2	2 50	1 50	8	8
9	10	10	10	2 50	1 50	9	9
8	10	10	10	2 50	1 25	8	8
12	10	10	10	2 50	1 50	12	12
12	10	10	10	2 50	1 35	12	12
8	10	10	10	2 50	1 25	8	8
12	10	10	10	2 50	1 25	12	12
9	10	9	9 1/2	2 50	1 50	9	9
5	10	9 1/2	9 1/2	2 50	1 00	5	5
6	10	9	9 1/2	2 50	1 25	6	6
12	10	10	10	2 50	1 25	12	12
10	10	10	10	2 50	1 20	10	10
12	10	12	11	2 50	1 25	12	12
12	10	9	9 1/2	2 50	1 00	12	12
11	10	10	10	2 50	1 25	11	11
12	10	10	10	2 50	1 25	12	12
9	10	10	10	2 50	1 25	9	9
10	10	9	9 1/2	2 50	1 35	10	10
10	10	10	10	2 50	1 25	10	10
10	10	10	10	2 50	1 40	10	10
12	10	10	10	2 50	1 50	12	12
9	10	9	9 1/2	2 50	1 25	9	9
12	10	10	10	2 50	1 25	12	12

Agricultural Implements—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each estab- lishment.....	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechan'cs	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Aver- age.		Full time..	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle....
67	225	\$2 50	\$1 35	10	10	10	12	12	.....	.....	.....	.....
68	126	2 00	1 25	10	10	10	11	11	.....	.....	.....	.....
69	50	2 25	1 25	10	10	10	10	10	.....	.....	.....	.....
70	30	2 00	1 50	10	10	10	10	6	.....	.....	4	.....
71	40	2 00	1 37	10	10	10	12	12	.....	.....	.....	.....
72	50	2 25	1 40	10	10	10	11	11	.....	.....	.....	.....
73	10	2 00	1 50	10	10	10	12	12	.....	.....	.....	.....
74	10	2 75	1 50	9	9	9	12	8	2	.....	2	.....

BOOTS AND SHOES.

1	18	\$2 00	\$1 00	10	10	10	12	12	.....	.....	.....	.....
2	25	2 00	1 75	10	10	10	12	12	.....	.....	.....	.....
3	120	1 00	50	10	10	10	12	12	.....	.....	.....	.....
4	15	1 00	1 00	10	10	10	11	10	1	.....	.....	1
5	53	3 00	2 00	10	10	10	12	12	.....	.....	.....	.....
6	90	2 00	1 50	10	10	10	11	11	.....	.....	.....	1
7	160	2 50	1 33	9	9	9	11	11	.....	.....	.....	1
8	250	3 00	1 50	9	9	9	12	12	.....	.....	.....	.....
9	75	2 75	1 00	10	9	9½	12	10	2	.....	.....	.....
10	80	2 25	1 00	10	10	10	11	11	.....	.....	.....	1
11	36	1 75	75	10	10	10	12	12	.....	.....	.....	.....
12	40	2 25	1 75	10	10	10	11	11	.....	.....	.....	1
13	24	3 00	1 50	10	10	10	12	12	.....	.....	.....	.....
14	22	2 00	75	10	10	10	12	12	.....	.....	.....	.....
15	28	1 75	1 00	10	10	10	11	11	.....	.....	.....	1
16	26	2 00	1 75	10	10	10	11	11	.....	.....	.....	1
17	45	2 25	1 00	10	10	10	12	12	.....	.....	.....	4
18	100	1 50	1 00	10	10	10	12	12	.....	.....	.....	.....
19	40	2 50	75	10	10	10	10	10	.....	.....	.....	2
20	53	2 00	1 25	10	10	10	12	12	.....	.....	.....	.....
21	50	2 00	1 25	10	10	10	11	11	.....	.....	.....	1
22	12	2 00	1 25	10	10	10	12	12	.....	.....	.....	.....
23	33	2 00	1 25	10	10	10	12	12	.....	.....	.....	.....
24	15	2 25	1 00	10	10	10	11	11	.....	.....	.....	1
25	10	2 00	1 50	10	10	10	12	12	.....	.....	.....	.....
26	23	2 00	1 50	10	10	10	12	8	2	.....	2	.....
27	35	2 50	1 25	10	10	10	11	11	.....	.....	.....	1
28	14	2 00	1 75	10	10	10	11	11	.....	.....	.....	1
29	58	2 00	1 10	10	10	10	12	12	.....	.....	.....	.....
30	514	3 80	45	11	10	10	12	12	.....	.....	.....	.....

BOXES.

1	20	\$1 75	\$1 25	10	10	10	11	9	2	.....	.....	1
2	31	2 00	1 25	10	8	9	12	12	.....	.....	.....	.....
3	80	3 00	1 50	10	10	10	12	12	.....	.....	.....	.....
4	70	1 75	1 00	10	10	10	12	12	.....	.....	.....	.....
5	70	2 00	1 25	10	9	9½	12	12	.....	.....	.....	.....
6	115	2 50	1 75	10	10	10	12	12	.....	.....	.....	.....
7	53	2 50	1 50	9	9	9	12	12	.....	.....	.....	.....
8	75	2 00	1 25	10	10	10	12	12	.....	.....	.....	.....
9	125	2 50	1 25	10	10	10	12	12	.....	.....	.....	.....
10	92	3 00	1 00	10	9	9½	12	12	.....	.....	.....	.....

Boxes—Continued.

Number of em- ployed	Average num- ber of em- ployed	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No of months employed in each estab- lishment.	TIME EMPLOYED MON:HE.		
		Skilled Mechan'ce	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Aver- age.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.
90	90	\$2 50	\$1 00	10	8	9	12	8	4	...
95	95	2 25	1 00	10	10	10	12	12	...	...
100	100	2 00	1 00	10	9	9	12	10	...	...
105	105	2 50	1 50	10	10	10	12	12	...	...
110	110	2 00	1 00	10	10	10	12	12	...	...
115	115	2 00	1 50	10	10	10	12	12	...	...
120	120	2 50	1 25	10	10	10	6	6	...	...
125	125	2 00	1 25	10	11	10	12	12	...	...
130	130	2 25	1 25	10	10	10	4	4	...	...
135	135	2 50	1 50	10	8	9	12	12	...	...
140	140	3 00	1 25	10	9	9 $\frac{1}{2}$	6	6	...	...
145	145	2 00	1 00	10	10	10	12	12	...	...
150	150	1 75	1 00	10	10	10	12	12	...	...
155	155	2 00	1 00	10	10	10	12	12	...	...
160	160	1 60	1 25	10	10	10	12	12	...	...
165	165	1 75	1 25	10	10	10	12	12	...	...
170	170	2 50	1 00	10	10	10	12	12	...	...
175	175	1 00	1 00	10	10	10	12	12	...	...
180	180	1 00	1 00	9	9	9	12	12	...	...
185	185	1 00	1 00	10	10	10	12	12	...	...
190	190	2 00	1 25	10	10	10	12	12	...	...
195	195	1 50	1 50	10	10	10	11	11	...	...

BRICK.

[illegible]

Brick—Continued.

Number of es- tablishment.	Average num- ber of em- ployes.....	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each estab- lishment.....	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers	May to Nov.	Nov. to May.	Yearly Aver- age.		Full time..	$\frac{3}{4}$ time.	$\frac{2}{3}$ time.	$\frac{1}{2}$ time.	Idle.....
36	16	\$2 50	\$1 25	10	10	10	6	6	.....	.....	.....	6
37	39	2 00	1 18	10	10	10	10	6	.....	.....	4	3
38	31	3 00	1 25	10	10	10	9	9	.....	.....	.....	3
39	20	1 75	1 25	10	9	9½	10	8	2	.....	.....	2
40	21	2 00	1 50	10	10	10	7	7	.....	.....	.....	5
41	17	2 00	1 25	8	10	9	10	6	.....	.....	4	2
42	35	2 00	1 25	10	10	10	7	7	.....	.....	.....	3
43	10	2 25	1 50	12	10	11	6	6	.....	.....	.....	6
44	50	1 50	1 25	10	9	9½	11	8	3	.....	.....	1
45	20	1 50	1 25	9	10	9½	8	8	.....	.....	.....	4
46	20	2 00	1 25	10	10	10	12	12	.....	.....	.....	.....
47	20	2 00	1 25	10	9	9½	12	12	.....	.....	.....	.....
48	30	1 50	.....	10	10	10	12	12	.....	.....	.....	.....
49	20	1 25	.....	10	9	9½	12	6	6	.....	.....	.....
50	30	2 50	1 25	10	8	9	6	6	.....	.....	.....	6
51	30	1 75	1 25	10	8	9	11	8	3	.....	.....	1

BROOMS AND BRUSHES.

1	65	\$2 00	\$1 00	10	10	10	12	9	.....	.....	3	.....
2	90	2 50	1 00	10	9	9½	11	8	3	.....	.....	1
3	30	2 00	1 00	10	10	10	12	12	.....	.....	.....	.....
4	8	2 25	.....	10	10	10	12	12	.....	.....	.....	.....
5	16	2 00	.....	10	11	10½	12	12	.....	.....	.....	.....
6	40	2 00	1 00	10	10	10	10	10	.....	.....	.....	2
7	39	2 00	50	10	10	10	12	12	.....	.....	.....	.....
8	20	1 75	1 00	10	9	9½	12	12	.....	.....	.....	.....

BUILDING.

1	12	\$2 00	\$1 25	10	10	10	12	12	.....	.....	.....	.....
2	153	2 00	1 50	10	10	10	12	12	.....	.....	.....	.....
3	36	2 00	1 25	10	9	9½	12	8	4	.....	.....	.....
4	31	2 00	1 50	10	9	9½	12	12	.....	.....	.....	.....
5	20	2 50	1 50	10	10	10	11	5	.....	.....	6	1
6	16	2 25	2 00	10	8	9	12	12	.....	.....	.....	.....
7	12	2 25	2 00	10	10	10	12	12	.....	.....	.....	.....
8	25	2 00	.....	10	9	9½	12	12	.....	.....	.....	.....
9	67	2 25	1 50	10	9	9½	12	12	.....	.....	.....	.....
10	30	2 25	1 50	10	8	9	12	9	3	.....	.....	.....
11	25	1 75	.....	10	9	9½	12	12	.....	.....	.....	.....
12	12	2 25	.....	10	10	10	11	11	.....	.....	.....	1
13	9	2 50	2 00	10	10	10	12	12	.....	.....	.....	.....
14	10	2 25	2 00	10	10	10	12	12	.....	.....	.....	.....
15	400	3 00	1 25	10	10	10	12	8	4	.....	.....	.....
16	20	2 25	1 00	10	10	10	12	12	.....	.....	.....	.....
17	8	2 25	2 00	10	9	9½	12	12	.....	.....	.....	.....
18	25	2 25	1 50	10	9	9½	12	12	.....	.....	.....	.....
19	22	1 90	1 50	10	9	9½	12	12	.....	.....	.....	.....
20	12	2 25	2 00	10	9	9½	12	12	.....	.....	.....	.....
21	18	2 00	1 50	10	9	9½	12	12	.....	.....	.....	.....
22	12	2 00	.....	10	9	9½	12	12	.....	.....	.....	.....
23	30	2 00	1 00	10	10	10	12	12	.....	.....	.....	.....
24	11	2 25	1 50	10	9	9½	12	12	.....	.....	.....	.....
25	16	2 25	1 50	10	9	9½	12	12	.....	.....	.....	.....
26	15	2 25	1 75	10	9	9½	9	9	.....	.....	.....	3
27	33	2 50	1 50	10	9	9½	12	9	3	.....	.....	.....

Building—Continued.

Number of establishment.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{2}{3}$ time.	$\frac{1}{2}$ time.	Idle....
1	30	\$2 25	\$1 50	10	10	10	12	12				
2	40	2 50	1 25	10	10	10	12	12				
3	25	2 00		10	10	10	12	12				
4	35	3 50	2 00	10	10	10	9	9				3
5	22	2 50	1 25	10	10	10	12	12				
6	12	2 50	2 00	10	10	10	12	12				
7	75	2 25	1 50	10	9	9 $\frac{1}{2}$	12	12				
8	18	2 25		10	9	9 $\frac{1}{2}$	12	12				
9	16	2 50	1 50	10	8	9	12	12				
10	10	2 25		10	10	10	10	10				2
11	12	2 25	1 50	10	10	10	12	12				
12	15	2 25	1 50	10	10	10	12	12				
13	30	1 75	1 25	10	9	9 $\frac{1}{2}$	10	10				2
14	33	2 25	1 75	10	9	9 $\frac{1}{2}$	12	12				
15	13	2 75	1 75	10	10	10	12	12				
16	40	2 75	1 50	10	10	10	10	10				2
17	29	2 75	1 50	10	9	9 $\frac{1}{2}$	9	9				3
18	25	2 75	1 50	10	10	10	10	10				2
19	24	3 00	1 50	10	10	10	9	9				3
20	20	2 75	1 62	10	10	10	9	9				3
21	40	2 50	1 50	10	10	10	10	10				2
22	36	2 50	1 25	10	10	10	7	7				5
23	14	2 75	1 50	10	10	10	8	8				4
24	25	2 50	1 60	10	10	10	10	10				2
25	60	2 75	1 60	10	10	10	10	10				2
26	38	2 50	1 50	10	10	10	8	8				4
27	15	2 75	1 60	10	10	10	9	9				3
28	30	2 50	1 50	10	9	9 $\frac{1}{2}$	12	12				
29	31	2 50	1 50	10	10	10	9	9				3
30	20	2 75	1 75	10	9	9 $\frac{1}{2}$	8	8				4
31	75	2 50	1 50	10	10	10	11	11				1
32	29	2 00	1 50	10	10	10	12	12				
33	25	2 75	1 50	10	10	10	8	8				4
34	24	2 75	1 50	10	10	10	7	7				5
35	31	2 75	1 50	10	10	10	5	5				7
36	30	2 00	1 50	10	9	9 $\frac{1}{2}$	12	12				
37	29	2 75	1 75	10	10	10	8	8				4
38	20	2 75	1 50	10	10	10	9	9				3
39	12	2 50	1 60	10	9	9 $\frac{1}{2}$	10	10				2
40	40	2 75	1 60	10	10	10	11	11				1
41	22	2 75	1 75	10	10	10	10	10				2
42	30	2 75	1 50	10	10	10	10	10				
43	51	2 50	1 75	10	10	10	12	12				
44	14	2 50	1 75	10	10	10	9	9				3
45	12	2 75	1 75	10	10	10	11	11				1
46	35	2 62	1 50	10	10	10	8	8				4
47	100	2 75	1 75	10	8	9	9	9				3
48	200	2 25	1 25	10	10	10	12	12				
49	40	2 75	1 62	10	8	9	12	12				
50	50	2 25	1 25	10	8	9	12	12				
51	40	2 50	1 25	10	10	10	9	9				3
52	40	2 25	1 75	10	9	9 $\frac{1}{2}$	12	12				
53	30	2 75	1 50	10	9	9 $\frac{1}{2}$	12	12				
54	150	2 50	1 50	10	10	10	12	12				
55	10	2 00		10	10	10	12	12				
56	20	2 00	1 00	10	10	10	12	8			2	
57	19	2 00	1 50	10	8	9	12	9			3	
58	15	2 00	1 50	10	10	10	8	8				4
59	25	2 00	1 25	10	10	10	6	6				6
60	13	2 00	1 50	10	10	10	12	8			4	
61	12	2 50		10	9	9 $\frac{1}{2}$	12	12				
62	30	2 50	1 50	10	9	9 $\frac{1}{2}$	12	8				
63	30	2 50	1 50	10	10	10	12	8				
64	23	2 50	1 25	10	10	10	12	10			2	
65	64	2 25	1 25	10	10	10	12	12				
66	16	2 25	1 25	10	10	10	12	12				

Building—Continued.

Number of establishment.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle.
93	10	\$2 25	\$1 50	10	10	10	12	12				
94	15	2 50	1 50	10	8	9	12	12				
95	25	2 00	1 25	10	9	9½	12	8	4			
96	10	1 75		10	8	9	12	10	2			
97	65	2 00	1 25	10	8	9	12	10	2			
98	20	2 75	1 00	10	8	9	12	9	3			
99	20	2 00	1 00	10	8	9	12	9	3			
100	35	2 10	1 00	10	9	9½	11	8	3			1
101	18	2 00	1 50	10	10	10	12	12				
102	10	2 25	1 50	10	10	10	12	10				2
103	18	2 00	1 25	10	8	9	12	11				1
104	22	2 00	1 25	10	9	9½	12	9	3			
105	13	2 50	2 00	10	10	10	12	8	4			
106	10	2 00	1 25	10	8	9	12	12				
107	30	1 75	1 25	10	9	9½	12	12				

CARRIAGES AND WAGONS.

1	40	\$1 75	\$1 25	10	9	9½	12	12				
2	12	1 50		10	10	10	12	12				
3	120	2 50	1 25	10	10	10	12	12				
4	25	2 50	1 25	10	10	10	12	12				
5	8	2 00		10	9	9½	12	12				
6	13	2 25	1 35	10	10	10	12	8	3	1		
7	12	2 25	1 25	10	10	10	12	12				
8	16	2 50	1 75	10	10	10	12	10	2			
9	10	2 00	1 00	10	8	9	12	12				
10	10	2 25	1 50	9	8	8½	12	12				
11	35	2 50	1 35	10	10	10	12	12				
12	10	2 00	1 25	10	8	9	12	12				
13	25	2 50	1 25	10	8	9	12	6		6		
14	13	2 00	1 25	10	10	10	12	12				
15	60	2 25	1 25	10	8	9	12	4			1	
16	20	2 00		10	10	10	12	12				
17	293	2 25	1 35	10	10	10	12	12				
18	160	2 00	1 25	10	9	9½	12	12				
19	70	1 75	1 00	10	10	10	12	12				
20	100	2 00	1 25	10	10	10	12	12				
21	30	2 00	1 00	10	10	10	12	12				
22	25	2 50	1 25	10	10	10	12	11	1			
23	22	2 25	1 40	10	9	9½	12	12				
24	53	2 25	1 12	10	9	9½	12	12				
25	46	2 50	1 50	10	10	10	12	12				
26	12	1 75	1 25	10	10	10	12	12				
27	9	2 50	1 25	11	10	10½	12	12				
28	12	1 75	1 25	10	10	10	12	12				
29	17	1 75	1 25	10	9	9½	12	6	6			
30	59	2 00	1 50	10	10	10	12	12				
31	31	2 37	1 65	10	10	10	12	12				
32	25	2 50	1 75	10	10	10	12	12				
33	15	2 50	1 75	10	9	9½	12	12				
34	10	2 50	1 75	10	10	10	12	12				
35	12	2 25	1 50	10	10	10	12	12				
36	16	2 00		10	10	10	12	12				
37	15	1 40		10	10	10	12	12				
38	12	2 25	1 50	10	10	10	12	12				
39	12	2 50	1 50	10	10	10	12	12				
40	13	2 50	1 33	10	10	10	12	12				
41	15	2 00	1 00	10	8	9	12	12				
42	11	2 50	2 00	10	9	9½	12	12				
43	10	2 50	2 00	10	10	10	12	12				
44	9	2 75	2 00	10	8	9	12	9	3			

CIGARS.

Number of es- tablishment..	Average num- ber of em- ployees	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each estab- lishment....	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Aver- age.		Full time..	1/2 time.	1/4 time.	1/8 time.	Idle
1	20	\$3 00	\$1 50	10	9	9 1/2	12	12				
2	16	3 00	1 25	12	12	12	12	12				
3	13	1 50	1 25	10	10	10	12	12				
4	12	1 75	1 25	8	8	8	12	12				
5	34	2 00	1 00	10	10	10	12	12				
6	10	1 75		10	10	10	12	12				
7	9	2 50	2 00	9	9	9	12	12				
8	110	2 50	1 50	9	9	9	12	12				
9	38	2 00	1 50	9	9	9	12	12				
10	46	2 00	1 40	10	10	10	12	12				
11	16	1 25		10	10	10	12	12				
12	75	1 50	1 00	10	9	9 1/2	12	12				
13	30	2 50	1 75	10	9	9 1/2	12	12				
14	30	2 00		8	8	8	12	12				
15	50	2 00	1 25	10	10	10	12	12				
16	10	2 00	1 50	10	10	10	12	12				
17	11	2 00	1 50	10	10	10	12	12				
18	14	1 85	1 50	10	10	10	12	12				
19	150	2 50	1 50	10	10	10	12	12				
20	12	2 00	1 00	10	10	10	12	12				
21	30	1 50	60	10	10	10	12	12				
22	65	3 00	1 20	10	10	10	12	12				
23	50	1 50	60	10	10	10	12	12				
24	25	1 50	1 00	10	10	10	12	12				
25	32	2 50	1 00	10	10	10	12	12				
26	20	2 25	1 50	10	10	10	12	12				
27	12	1 75	75	10	10	10	12	12				
28	16	1 75	1 00	10	10	10	12	12				
29	16	1 66	1 00	9	9	9	12	12				
30	25	1 50	75	10	10	10	12	12				
31	18	2 00	1 25	10	10	10	12	12				
32	14	1 85	40	10	10	10	12	12				
33	50	2 50	1 25	10	10	10	12	12				
34	24	1 50	30	10	10	10	12	12				
35	80	2 00	1 00	10	10	10	12	12				
36	22	2 50	2 00	10	10	10	12	12				
37	10	2 00	50	10	10	10	12	12				
38	21	2 00	1 00	10	10	10	12	12				
39	16	1 75	50	10	8	9	12	12				

CLOCKS AND WATCHES.

1	100	\$3 00	\$2 00	10	10	10	12	10			2	
2	15	2 50	1 50	10	10	10	12	12				
3	1021	3 71	1 30	10	10	10	12	12				
4	402	3 00	1 50	10	10	10	12	12				
5	121	3 00	1 40	10	10	10	12	12				

CLOTHING.

1	15	\$2 00	\$1 00	10	10	10	12	12				
2	9	3 00	2 00	10	10	10	12	12				
3	1250	3 00	1 00	10	10	10	12	12				
4	750	2 00	1 00	10	10	10	12	12				
5	975	2 25	1 00	10	10	10	12	12				
6	1000	2 00	1 00	10	9	9 1/2	12	12				
7	35	2 00	1 00	10	10	10	12	12				
8	400	3 50	1 00	10	10	10	12	11				

TIME AND WAGES.

Clothing—Continued.

Average num. days of employment.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each estab- lishment.	TIME EMPLOYED	
	Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Aver- age.		Full time	% time.
600	\$2 00	\$1 00	10	10	10	12	12	100
175	2 00	1 00	12	10	11	12	12	100
100	3 00	1 00	9	10	9½	12	6	50
100	3 00	1 50	10	10	9	10	10	100
100	3 00	2 00	10	10	10	12	12	100
100	3 00	1 00	8	8	8	12	12	100
75	2 00	1 50	10	10	10	12	6	50
50	2 00	1 00	10	10	10	12	8	66
400	3 00	1 00	10	8	9	12	12	100
150	3 00	1 00	10	9	9½	12	12	100
70	50	1 00	10	10	10	12	12	100
160	00	1 00	10	10	10	12	12	100
150	2 50	1 00	10	10	10	12	12	100
12	50	1 00	10	9	9½	12	12	100
75	50	1 00	10	10	10	12	12	100
50	50	1 00	10	10	10	12	12	100
84	50	75	9	9	9	6	6	50
140	50	1 50	10	10	10	12	12	100
10	50	1 00	10	10	10	6	6	50
81	50	1 50	10	10	10	12	12	100
30	50	1 00	10	10	10	12	12	100
100	75	2 00	10	10	10	12	12	100
91	50	1 00	12	12	12	12	12	100
40	50	1 50	10	10	10	12	12	100
30	50	2 00	10	10	10	9	9	75
125	50	1 00	10	10	10	12	12	100
12	50	2 00	12	10	11	12	12	100
55	50	1 75	10	10	10	12	12	100
11	50	1 00	10	10	10	12	12	100
33	75	1 50	10	10	10	12	12	100
15	75	1 25	10	10	10	12	12	100
18	50	1 50	10	10	10	12	12	100
15	50	1 50	10	10	10	12	8	66
15	50	1 00	10	10	10	12	8	66
15	50	2 00	10	10	10	12	12	100
20	50	2 00	10	10	10	12	12	100
7	75	2 00	10	10	10	12	12	100
30	50	2 00	10	10	10	12	12	100
34	00	2 00	10	10	10	12	12	100
23	00	2 00	10	10	10	12	10	83
80	00	2 00	10	10	10	12	12	100
35	00	2 00	10	10	10	12	8	66
20	00	2 00	10	8	8	12	12	100
15	25	2 00	10	10	10	12	8	66
20	00	2 00	11	11	11	12	12	100
58	00	1 00	10	9	9½	12	12	100
150	50	1 00	9	9	9	12	8	66
300	00	75	9	9	9	12	12	100
250	00	75	9	9	9	12	12	100
84	00	75	9	9	9	12	12	100
63	75	1 00	10	10	10	12	12	100
40	75	1 00	10	10	10	12	8	66
40	25	1 00	9	9	9	12	12	100
17	50	1 50	10	10	10	12	12	100
25	50	1 00	10	10	10	12	12	100
31	25	1 00	10	10	10	12	12	100
9	25	1 00	9	9	9	12	12	100
310	25	1 00	9	9	9	12	12	100
2	25	1 00	9	9	9	12	12	100
1	50	1 00	9	9	9	12	12	100

Clothing—Continued.

Number of establishment.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle....
74	36	\$1 75	\$1 00	9	9	9	12	12				
75	11	4 00	2 00	10	10	10	10	10				
76	20	2 50	1 25	10	10	10	12	12				
77	280	1 33	87	10	10	10	12	10				
78	100	1 50	75	9	9	9	10	8				
79	70		1 25	9	9	9	9	7				
80	17	1 00		10	10	10	12	7				
81	250	2 00	90	9	9	9	12	7				
82	107	50		10	10	10	12	12				
83	110	1 25		9	9	9	10	10				
84	58	2 50	1 00	9	9	9	12	12				
85	128	1 75	1 00	10	9	9½	11	11				
86	157	1 00		10	11	10½	12	6	4			
87	72	3 00	1 00	10	8	9	12	6	3	2		
88	119	1 25	1 00	9	10	9½	10	10				
89	250		1 25	9	9	9	12	12				
90	21	1 30	60	9	9	9	12	12				
91	38	1 33	88	9		9	12	12				
92	45	1 50		10	10	10	12	12				
93	50	1 75	1 00	9	9	9	11	9	2			
94	110	85	48	9		9	12	12				
95	32	2 00	1 00	9	9	9	12	12				
96	33	63	50	9½	8½	9	12	12				
97	23	2 40		10	10	10	8	8				
98	20	2 25	1 50	10	10	10	12	9	3			
99	94	2 00	75	11	9	10	9	9				
100	14	1 75	1 00	10	10	10	12	12				
101	24	1 75	1 00	10	10	10	12	12				
102	10	2 50	2 00	10	10	10	12	12				
103	50	1 50	1 25	10	10	10	12	10		2		
104	35	3 00	1 00	10	10	10	12	12				
105	34	2 67	1 25	10	10	10	12	12				
106	11	4 00	1 00	10	10	10	12	12				
107	15	2 00	1 00	10	12	11	12	12				
108	20	3 00	1 00	10	10	10	12	8		4		
109	15	2 50	1 00	10	10	10	12	12				
110	16	2 00	1 00	10	10	10	12	8		4		
111	100	2 50	50	10	10	10	12	12				
112	85	75		10	8	9	10	10				
113	14	3 50	75	10	10	10	12	12				
114	100	2 00	75	10	9	9½	12	8	4			
115	132	1 75	1 00	10		10	9	9				
116	30	2 50		10	10	10	12	10	2			
117	10	2 00		10	10	10	12	10				
118	18	3 50	1 25	9	9	9	12	12				
119	10	6 00	2 00	10	10	10	12	12				
120	26	3 00	1 00	10	10	10	11	10	1			
121	20	3 00	1 50	10	10	10	12	12				

COOKING AND HEATING APPARATUS.

1	85	\$3 65	\$1 30	10	10	10	10	10				
2	115	3 50	1 50	10	9	9½	10	10				
3	48	3 40	1 50	10	10	10	10	10				
4	35	3 65	1 55	10	10	10	11	11				
5	130	2 75	1 50	10	8	9	12	12				
6	125	3 00	1 50	10	9	9½	11	11				
7	30	2 75	1 50	10	10	10	12	12				
8	10	2 50	2 00	10	10	10	12	12				
9	90	2 30	1 30	10	10	10	11	11				
10	95	2 50	2 00	10	10	10	12	12				

Cooking and Heating Apparatus—Continued.

Number of establishments.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle.
11	14	\$2.50	\$1.50	10	10	10	12	12				
12	22	2.50	1.00	10	10	10	12	12				
13	24	2.50	1.50	10	10	10	12	12				
14	12	2.00	1.25	10	8	9	12	8	4			
15	30	2.00	1.00	10	10	10	12	12				
16	16	2.50	1.00	10	10	10	12	12				
17	30	3.00	1.50	10	10	10	9	9				3
18	27	3.50	1.50	10	10	10	11	11				1
19	41	2.50	1.50	10	10	10	10	10				2
20	46	4.00	1.50	10	10	10	12	12				

CURED AND PACKED MEATS.

1	30	\$1.50	\$1.25	10	10	10	6	6				6
2	21	2.00	1.25	10	10	10	6	6				6
3	45	2.00	1.00	10	10	10	12	12				
4	15	2.25	1.25	10	10	10	12	12				
5	8	2.75	2.00	10	10	10	12	12				
6	28	2.50	1.75	10	10	10	12	12				
7	12	2.50	1.50	10	10	10	12	12				
8	10	2.25	1.75	12	10	11	12	12				
9	15	3.00	1.50	10	10	10	12	12				
10	125	2.50	1.75	10	10	10	8	4		4		4
11	140	3.00	1.60	10	10	10	6	6				6
12	62	2.50	1.50	10	10	10	12	12				
13	64	4.00	1.75	10	10	10	12	12				
14	175	2.50	1.75	10	10	10	8	8				4
15	50	2.25	1.62	10	10	10	12	12				
16	170	2.75	1.50	10	10	10	5	5				7
17	83	2.75	1.75	10	10	10	6	4	1		1	6
18	39	3.00	1.75	10	10	10	7	7				5
19	50	3.00	1.50	10	10	10	2	2				10
20	40	2.50	1.75	10	10	10	4	4				8
21	12	3.25	2.50	10	10	10	6	6				6
22	850	2.50	1.60	10	10	10	12	12				
23	300	3.00	1.75	10	10	10	12	12				
24	70	3.00	1.75	10	10	10	11	11				1
25	60	3.00	1.75	10	10	10	10	6	1		3	2
26	50	2.50	1.75	10	10	10	11	9			2	1
27	300	3.00	1.50	10	10	10	12	12				
28	350	3.00	1.50	10	10	10	10	6	2		2	2
29	20	2.50	1.50	10	10	10	10	8			2	2
30	45	2.00	1.50	10	10	10	9	9				3
31	80	2.00	1.25	10	10	10	12	9			3	
32	56	3.00	1.50	10	10	10	12	12				
33	70	2.75	1.60	10	10	10	12	10	1		1	
34	20	2.00		10	10	10	7	7				5
35	12	2.00		10	10	10	12	12				
36	8	2.25		12	11	11½	12	12				
37	40	1.75	1.50	10	10	10	12	12				
38	25	2.50	1.75	10	10	10	12	12				
39	30	2.00	1.50	10	10	10	12	12				
40	1,525	3.00	1.50	10	10	10	11	10			1	1
41	850	2.25	1.75	10	10	10	10	8	1		1	2
42	175	2.50	1.75	10	10	10	10	10				2
43	300	2.75	1.75	10	10	10	8	8				4
44	240	3.25	1.75	10	10	10	12	12				
45	85	2.62	1.75	10	10	10	9	9				3
46	66	2.25	1.25	10	12	13	8	4			4	4
47	40	2.00	1.25	10	10	10	4	4				8
48	6	2.00	1.50	12	12	12	12	12				
49	175	2.00	1.00	10	10	10	4	4				8
50	20	2.00	1.50	10	10	10	10	4			6	2

Cured and Packed Meats—Continued.

Number of establishments...	Average number of employees...	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.....	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle.....
51	1,166	\$2 50	\$1 50	10	10	10	10	10	...	...	...	...
52	975	2 50	1 50	10	10	10	10	10	...	...	...	...
53	1,000	2 50	1 50	10	10	10	4	4	...	...	...	...
54	20	2 00	1 25	12	12	12	12	8	4	...	...	...

DRUGS AND MEDICINES.

1	100	\$3 00	\$2 00	12	12	12	12	12	...	...	...	...
2	30	2 50	1 00	10	10	10	12	12	...	...	...	...
3	18	2 50	1 25	10	10	10	12	12	...	...	...	...
4	33	1 75	1 00	10	9	9½	12	12	...	...	...	...
5	17	1 25	1 00	10	10	10	12	12	...	...	...	...
6	23	2 50	1 05	10	10	10	12	12	...	...	...	...
7	12	5 00	2 00	10	10	10	12	8	2	2	...	...
8	8	2 00	...	10	10	10	12	12	...	...	...	...
9	40	2 50	1 50	10	10	10	12	12	...	...	...	...

FLOUR AND MEAL.

1	10	\$4 00	\$1 50	12	12	12	12	12	...	...	...	...
2	12	3 00	1 50	12	12	12	11	11	...	...	...	...
3	10	2 00	1 50	12	12	12	12	12	...	...	...	...
4	13	2 50	1 50	12	12	12	12	12	...	...	...	...
5	18	4 00	1 75	11	11	11	12	12	2	4	...	...
6	9	3 50	1 50	12	12	12	12	12	1	6	...	...
7	14	3 00	1 25	12	12	12	12	12	...	...	...	...
8	10	3 00	1 25	12	12	12	12	12	3	...	...	...
9	20	3 00	1 75	10	10	10	12	12	...	...	...	...
10	10	3 00	1 75	10	10	10	12	12	...	...	...	...
11	39	3 00	1 25	10	10	10	11	11	...	...	...	...
12	10	2 00	1 00	10	10	10	12	12	...	...	...	...
13	20	2 25	1 00	12	12	12	12	12	...	...	...	...
14	24	3 00	1 25	10	10	10	12	12	...	...	...	...
15	26	3 00	1 00	12	12	12	11	11	...	...	...	...
16	25	3 00	1 25	12	12	12	11	11	...	...	...	...
17	28	3 00	1 35	12	12	12	12	12	...	...	...	...
18	14	2 00	1 00	12	12	12	12	12	2	6	...	...
19	24	2 50	1 66	12	12	12	12	12	...	...	...	...
20	18	2 00	1 50	10	10	10	12	12	...	...	...	...
21	9	2 50	1 50	10	10	10	12	12	...	...	...	...
22	35	2 55	1 60	10	10	10	12	12	...	...	...	...
23	28	2 70	1 50	10	10	10	12	12	...	...	...	...
24	6	2 00	1 50	12	12	12	12	12	...	...	...	...
25	21	3 00	1 75	10	10	10	12	12	...	...	...	...
26	16	2 75	1 75	10	10	10	12	12	...	...	...	...
27	8	1 50	1 25	12	12	12	12	12	...	...	...	...
28	15	2 50	1 25	12	10	11	8	8	...	...	...	...
29	25	4 00	1 00	12	12	12	12	12	4	...	...	...
30	8	3 50	1 00	12	12	12	9	9	...	...	...	...
31	15	1 50	1 25	10	10	10	12	12	...	...	...	...
32	7	2 50	1 25	10	10	10	12	12	...	...	...	...
33	12	2 00	1 50	10	10	10	12	12	...	...	...	...
34	4	1 85	1 40	10	10	10	12	12	...	...	...	...
35	25	2 50	1 50	10	10	10	12	12	...	...	...	...
36	45	4 00	1 60	12	12	12	9	9	...	...	...	...
37	18	4 00	1 00	10	10	10	12	12	...	...	...	...
38	20	2 50	1 50	12	12	12	11	11	...	...	...	...
39	21	2 50	1 50	12	12	12	11	11	...	...	...	...
40	15	2 00	1 25	12	12	12	12	12	...	...	...	...

Flour and Meal—Continued.

Number of establishment.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanic's	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle.
1	13	\$2 60	\$1 50	10	10	10	12	12				2
2	13	3 50	1 12	12	10	11	10	4	2			4
3	12	2 65	1 50	12	12	12	8	4				4
4	18	5 00	2 00	12	12	12	12	12				
5	24	4 00	1 50	10	10	10	12	12				
6	20	4 00	1 50	12	12	12	10	10				2
7	25	3 00	1 50	12	12	12	12	12				
8	20	3 00	1 50	12	12	12	8	8				4
9	40	2 50	1 50	12	12	12	10	10				2
10	12	3 00	1 25	12	12	12	12	6				
11	11	3 00	1 25	12	12	12	10	3	2			3
12	18	5 00	1 25	10	10	10	10	6				2
13	20	5 00	1 25	10	10	10	11	11				1
14	44	2 47	1 33	10	10	10	10	10				2
15	12	3 00	1 50	12	12	12	12	9	3			
16	27	2 80	1 50	10	10	10	12	12				
17	9	2 50	1 50	12	12	12	12	12				
18	10	3 00	1 50	12	12	12	7	7				5
19	16	2 00	1 00	11	11	11	12	9				3
20	26	3 00	1 25	12	12	12	12	12				
21	22	3 50	1 40	12	12	12	10	10				2
22	11	2 50	1 25	12	12	12	12	12				
23	16	2 50	1 35	12	12	12	12	12				
24	11	3 00	1 50	12	12	12	12	12				
25	11	2 30	1 40	12	12	12	11	11				1
26	12	2 50	1 15	12	12	12	12	12				
27	12	2 50	1 40	12	12	12	11	11				1
28	18	3 00	1 35	12	12	12	12	12				
29	30	3 10	1 50	10	10	10	8	8				4
30	50	3 50	1 35	10	10	10	11	11				1
31	19	3 00	1 25	12	12	12	11	11				1
32	45	3 00	1 50	12	12	12	11	8	3			1
33	23	3 00	1 50	12	12	12	12	12				
34	14	2 50	1 50	12	12	12	10	10				2
35	13	2 50	1 25	12	12	12	10	10				2
36	16	2 33	1 25	12	12	12	10	8				2
37	27	3 50	1 40	10	10	10	11	11				1
38	14	2 25	1 25	10	10	10	11	11				1
39	26	3 00	1 00	12	12	12	10	10				2
40	15	3 00	1 25	10	10	10	11	11				1
41	15	4 00	1 50	12	12	12	10	10				2
42	20	2 70	1 35	12	11	11½	12	9				3
43	10	2 00	1 00	10	10	10	12	12				
44	18	2 00	1 00	11	11	11	12	12				
45	24	2 25	1 40	12	10	11	12	10				2
46	20	2 50	1 25	10	10	10	12	12				
47	7	2 56	1 50	12	12	12	10	10				2
48	10	2 50	1 25	12	12	12	11	11				1
49	10	3 85	1 00	12	12	12	12	12				
50	30	2 67	1 40	10	10	10	11	11				1
51	35	2 75	1 40	10	10	10	11	11				1
52	15	2 50	1 25	12	12	12	12	12				
53	13	3 00	1 25	12	12	12	12	12				
54	9	2 50	1 25	10	10	10	12	12				
55	50	2 50	1 25	12	12	12	12	12				
56	25	1 75	1 20	10	10	10	12	12				
57	14	2 00	1 50	10	10	10	9	9				3

FOOD PREPARATIONS.

Number of es- tablishment...	Average num- ber of em- ployes.....	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each estab- lishment.....	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Aver- age.		Full time..	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Less
1	25	\$2.00	\$1.00	12	12	12	11	11				
2	35	3.00	1.00	10	10	10	12	12				
3	10	2.00	1.00	8	8	8	12	12				
4	175	2.25	1.50	10	10	10	12	12				
5	65	2.00	1.50	10	10	10	12	10	2			
6	41	3.00	2.00	10	10	10	12	12				
7	14	2.00	1.00	10	10	10	12	12				
8	3	2.00		10	10	10	12	12				
9	12	2.00		12	12	12	12	12				
10	16	2.00	1.50	10	10	10	12	12				
11	16	2.50	1.50	10	10	10	12	12				
12	12	2.00	1.00	10	10	10	12	12				
13	10	2.17	1.00	12	10	11	12	12				
14	15	2.50	1.00	10	10	10	12	12				
15	11	2.00	1.00	10	10	10	12	12				
16	47	3.00	1.25	10	10	10	12	12				
17	32	2.50	1.00	12	12	12	12	12				
18	430	2.62	1.62	12	12	12	12	12				
19	54	2.50	1.50	10	9	9½	10	10				
20	20	2.00	1.25	10	10	10	6	6				
21	36	1.50	1.00	10	10	10	4	4				
22	16	2.00	1.50	12	12	12	12	12				
23	32	2.50	1.00	10	10	10	12	12				
24	35	2.00	1.00	10	10	10	12	12				
25	110	2.00	1.00	10	10	10	12	12				
26	29	2.50	1.50	10	9	9½	12	12				
27	18	2.00	1.00	10	10	10	12	12				
28	12	2.75	1.50	10	10	10	12	12				
29	20	3.50	1.75	9	9	9	12	12				
30	200	2.50	1.00	10	10	10	12	12				
31	128	1.75	.60	10	10	10	12	12				
32	21	3.50	1.00	12	12	12	12	12				
33	32	3.00	.50	10	10	10	12	12				
34	60	2.90	.90	10	10	10	12	12				
35	70	2.50	.75	10	10	10	12	12				
36	13	3.00	1.00	10	10	10	12	12				
37	12	3.00	1.75	10	10	10	12	12				
38	18	2.50	1.00	10	10	10	12	12				
39	7	2.25	2.00	10	10	10	12	12				
40	125	3.00	1.00	10	10	10	12	12				
41	24	2.25	1.50	10	10	10	12	10	2			
42	20	2.00	1.25	10	10	10	12	12				
43	50	2.25	.75	10	10	10	11	11				
44	17	2.50	1.00	10	9	9½	12	12				
45	40	2.00	.75	10	10	10	12	12				
46	30	2.00	1.25	10	10	10	12	10		2		
47	50	2.50	1.00	10	10	10	12	12				
48	15	3.00	1.00	9	10	9½	12	5	3	2		
49	211	2.00	1.25	10	10	10	3	3				
50	25	2.50	1.00	10	10	10	9	9				
51	15	2.00	1.00	10	10	10	12	12				
52	30	2.25	.75	10	10	10	12	12				
53	29	2.50	1.50	10	10	10	12	12				
54	11	2.00	1.50	10	10	10	12	12				
55	12	2.00	1.50	10	10	10	12	12				
56	30	3.00	1.25	10	10	10	12	12				

TIME AND WAGES.

FURNITURE.

Number of establishment	Average num- ber of men	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			employed in each estab- lishment
		Skilled Mechanics	Ordinary Laborers	May to Nov.	Nov to May.	Yearly Aver- age.	
1	1	25	35	10	10	10	10
2	1	00	30	10	9	9 1/2	10
3	1	00	50	10	10	10	10
4	1	50	75	10	9	9 1/2	10
5	1	45	50	10	9	9 1/2	10
6	1	00	50	10	9	9 1/2	10
7	1	50	25	10	10	10	10
8	1	50	25	10	10	10	10
9	1	50	25	9	8	9	9
10	1	60	00	10	10	10	10
11	1	25	75	10	8	9	9
12	1	30	50	10	10	10	10
13	1	30	50	10	8	9	9
14	1	30	50	10	8	9	9
15	1	30	50	10	8	9	9
16	1	30	50	10	8	9	9
17	1	30	50	10	8	9	9
18	1	30	50	10	8	9	9
19	1	30	50	10	8	9	9
20	1	30	50	10	8	9	9
21	1	30	50	10	8	9	9
22	1	30	50	10	8	9	9
23	1	30	50	10	8	9	9
24	1	30	50	10	8	9	9
25	1	30	50	10	8	9	9
26	1	30	50	10	8	9	9
27	1	30	50	10	8	9	9
28	1	30	50	10	8	9	9
29	1	30	50	10	8	9	9
30	1	30	50	10	8	9	9
31	1	30	50	10	8	9	9
32	1	30	50	10	8	9	9
33	1	30	50	10	8	9	9
34	1	30	50	10	8	9	9
35	1	30	50	10	8	9	9
36	1	30	50	10	8	9	9
37	1	30	50	10	8	9	9
38	1	30	50	10	8	9	9
39	1	30	50	10	8	9	9
40	1	30	50	10	8	9	9
41	1	30	50	10	8	9	9
42	1	30	50	10	8	9	9
43	1	30	50	10	8	9	9
44	1	30	50	10	8	9	9
45	1	30	50	10	8	9	9
46	1	30	50	10	8	9	9
47	1	30	50	10	8	9	9
48	1	30	50	10	8	9	9
49	1	30	50	10	8	9	9
50	1	30	50	10	8	9	9
51	1	30	50	10	8	9	9
52	1	30	50	10	8	9	9
53	1	30	50	10	8	9	9
54	1	30	50	10	8	9	9
55	1	30	50	10	8	9	9
56	1	30	50	10	8	9	9
57	1	30	50	10	8	9	9
58	1	30	50	10	8	9	9
59	1	30	50	10	8	9	9
60	1	30	50	10	8	9	9
61	1	30	50	10	8	9	9
62	1	30	50	10	8	9	9
63	1	30	50	10	8	9	9
64	1	30	50	10	8	9	9
65	1	30	50	10	8	9	9
66	1	30	50	10	8	9	9
67	1	30	50	10	8	9	9
68	1	30	50	10	8	9	9
69	1	30	50	10	8	9	9
70	1	30	50	10	8	9	9
71	1	30	50	10	8	9	9
72	1	30	50	10	8	9	9
73	1	30	50	10	8	9	9
74	1	30	50	10	8	9	9
75	1	30	50	10	8	9	9
76	1	30	50	10	8	9	9
77	1	30	50	10	8	9	9
78	1	30	50	10	8	9	9
79	1	30	50	10	8	9	9
80	1	30	50	10	8	9	9
81	1	30	50	10	8	9	9
82	1	30	50	10	8	9	9
83	1	30	50	10	8	9	9
84	1	30	50	10	8	9	9
85	1	30	50	10	8	9	9
86	1	30	50	10	8	9	9
87	1	30	50	10	8	9	9
88	1	30	50	10	8	9	9
89	1	30	50	10	8	9	9
90	1	30	50	10	8	9	9
91	1	30	50	10	8	9	9
92	1	30	50	10	8	9	9
93	1	30	50	10	8	9	9
94	1	30	50	10	8	9	9
95	1	30	50	10	8	9	9
96	1	30	50	10	8	9	9
97	1	30	50	10	8	9	9
98	1	30	50	10	8	9	9
99	1	30	50	10	8	9	9
100	1	30	50	10	8	9	9

Furniture—Continued.

Number of establishment.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle.
67	33	\$1 85	\$1 35	10	9	9½	12	10				2
68	25	2 00	1 50	10	9	9½	12	10	2			
69	21	2 00	1 00	10	8	9	11	7	4			
70	14	1 60	1 17	10	10	10	12	12				
71	13	2 00		10	10	10	12	12				
72	18	2 00		10	10	10	12	12				
73	24	1 75	1 25	10	10	10	12	6		6		
74	11	2 25	1 50	10	10	10	12	12				
75	12	2 00	1 50	10	10	10	12	12				
76	34	2 00	1 25	10	10	10	12	12				
77	42	2 50	1 00	10	10	10	12	12				
78	25	1 75	1 00	10	10	10	12	12				
79	20	2 50	1 00	10	10	10	12	9			3	
80	86	2 50	1 50	10	8	9	11	8	3			1
81	12	2 00	1 25	10	8	9	12	10			2	
82	275	2 50	1 50	10	8	9	12	9	3			
83	15	2 00	1 50	10	10	10	12	12				
84	52	2 25	1 25	10	10	10	11	11				1
85	16	2 00	1 00	10	10	10	12	9	3			
86	22	2 50	1 50	10	9	9½	12	12				
87	12	1 75		10	10	10	12	12				
88	45	2 25	1 50	10	9	9½	12	10	2			
89	396	2 25	1 50	10	10	10	12	12				
90	25	2 00	1 00	10	10	10	9	9				3
91	80	2 00	1 00	10	10	10	12	12				
92	56	1 75	1 00	10	9	9½	12	12				
93	58	2 00	1 00	10	9	9½	11	11				1
94	75	2 25	1 25	10	10	10	12	12				
95	140	1 50	1 00	10	8	9	12	12				
96	70	2 25	1 00	10	10	10	12	12				
97	90	2 00	1 00	10	10	10	12	12				
98	23	2 25	1 00	10	10	10	12	12				
99	31	2 00	1 75	10	10	10	12	12				
100	14	2 25	1 50	10	10	10	12	12				
101	10	2 25		10	10	10	12	12				
102	20	2 00		10	10	10	12	12				
103	30	2 50	1 25	10	10	10	12	12				
104	125	2 50	1 00	10	10	10	12	12				
105	38	2 50	1 25	10	8	9	12	10			2	
106	19	2 00	1 25	10	10	10	12	12				
107	125	2 00	1 50	10	8	9	12	8	4			
108	14	1 75	1 50	10	8	9	12	6	6			
109	30	2 00	1 25	10	10	10	12	12				
110	80	1 75	1 50	10	8	9	12	9	3			
111	65	2 00	1 25	10	9	9½	12	12				
112	20	2 00		10	10	10	12	12				
113	15	2 00		10	10	10	12	12				
114	11	2 00	1 50	10	10	10	12	12				
115	60	2 00	1 50	10	10	10	12	12				
116	116	2 00	1 00	10	9	9½	12	12				
117	56	2 25	1 50	10	9	9½	12	12				
118	50	2 25	1 50	10	10	10	12	12				

LEATHER.

1	10	\$2 50	\$1 75	10	10	10	12					
2	9	2 25	1 00	10	10	10	12	12				
3	10	2 00		10	10	10	12	12				
4	12	2 00	1 50	10	10	10	12	12				
5	145	2 25	1 17	10	10	10	12	12				
6	66	2 25	75	10	10	10	12	12				

Leather—Continued.

Number of establishments.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechan'cs	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle.
7	12	\$1 75	\$1 50	10	10	10	12	12				
8	40	2 50	1 90	10	10	10	12	12				
9	45	1 75	1 90	10	10	10	12	12				
10	40	1 50		10	10	10	12	12				
11	18	2 00	1 25	10	10	10	12	12				
12	167	2 25	1 75	10	9	9½	12	12				
13	188	3 00	1 50	10	9	9½	12	12				
14	80	2 50	1 75	10	10	10	12	12				
15	35	2 25	1 75	10	9	9½	12	12				
16	85	3 00	1 75	10	10	10	12	12				
17	46	1 66		10	10	10	12	12				
18	156	2 00	1 00	10	8	9	12	12				
19	56	2 00	1 50	10	10	10	12	12				
20	40	1 75	1 25	10	9	9½	12	12				
21	78	2 25	1 50	10	10	10	12	12				
22	15	2 25	1 50	10	10	10	12	12				
23	29	2 50	1 50	10	10	10	12	12				
24	34	2 00	1 50	10	10	10	12	12				
25	13	2 00		10	10	10	12	12				
26	15	2 25	1 25	10	9	9½	12	12				
27	20	2 00	1 50	10	10	10	12	12				
28	35	2 00	1 50	10	10	10	12	12				
29	83	2 25	1 75	10	9	9½	12	12				
30	75	2 75	2 00	10	10	10	12	12				
31	23	1 66		10	10	10	12	12				
32	11	2 00	1 50	10	9	9½	12	6	6			
33	15	2 50	1 25	10	10	10	12	12				
34	35	2 50	1 25	10	10	10	12	12				
35	15	2 50	1 50	10	10	10	12	12				
36	30	2 00	1 00	10	10	10	12	12				
37	18	1 80		10	10	10	12	12				
38	10	1 80		10	10	10	12	12				
39	25	1 75	1 25	10	8	9	12	8				

LUMBER.

1	45	\$2 00	\$1 00	10	10	10	9	9				3
2	38	1 75	1 25	10	9	9½	12	8	4			
3	27	1 75	1 00	10	8	9	12	12				
4	20	2 00	75	10	10	10	12	12				
5	75	1 75	1 25	10	9	9½	12	9				3
6	30	2 00	1 00	10	10	10	12	12				
7	30	2 25	1 00	10	10	10	6	6				6
8	25	4 00	1 25	11	10	10½	12	12				
9	25	2 50	1 25	10	9	9½	12	10	2			
10	100	2 50	1 35	10	10	10	12	12				
11	25		1 62	10	9	9½	12	12				
12	75	1 75	1 00	10	10	10	12	10	2			
13	55	1 75	1 25	10	10	10	12	11		1		
14	42	1 75	1 25	10	10	10	12	12				
15	23	1 75	1 25	10	8	9	12	8	4			
16	20	2 00	1 30	10	10	10	13	9			3	
17	14	1 75	1 25	10	10	10	12	12				
18	40	2 00	1 40	10	10	10	6	6				6
19	24	1 60	1 00	12	12	12	12	6	2		4	
20	20	2 50	1 00	10	10	10	8	8				4
21	37	2 25	1 55	9	10	9½	12	12				
22	10	2 50	1 25	10	9	9½	9	9				3
23	23	2 50	1 50	10	9	9½	12	7			6	
24	50	2 00	1 00	11	11	11	8		6			4
25	60	2 40	1 25	11	10	10½	11	11				1

Lumber—Continued.

Number of es- tablishment	Average num- ber of em- ployes	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each estab- lishment	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Aver- age.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle
26	100	\$2 50	\$1 25	11	10	10 $\frac{1}{2}$	8			8		4
27	43	2 50	1 50	10	8	9	12	8	4			
28	18	2 00	1 25	10	9	9 $\frac{1}{2}$	12	8	4			
29	41	4 00	1 25	10	9	9 $\frac{1}{2}$	12	8	2			
30	20	2 50	1 20	10	8	9	12	10	1			
31	32	2 75	1 25	10	10	10	12	12				
32	11	2 00	1 25	10	9	9 $\frac{1}{2}$	12	12				
33	40	1 50	1 25	11	10	10 $\frac{1}{2}$	11	10				
34	25	2 00	1 25	11	10	10 $\frac{1}{2}$	12	10	2			
35	15	2 25	1 75	10	10	10	12	12				
36	55	2 50	1 25	10	8	9	12	6	6			
37	12	2 00	1 00	11	11	11	12	12				
38	60	3 00	1 35	11	11	11	8	8				4
39	40	3 00	1 50	11	11	11	8	8				4
40	115	2 50	1 50	11	9	10	9	9				3
41	65	2 50	1 35	11	9	10	8	8				4
42	17	2 00	1 00	10	10	10	12	12				
43	32	1 75	1 00	10	9	9 $\frac{1}{2}$	10	10				2
44	40	2 50	1 00	10	10	10	10	8		2		2
45	25	2 50	1 00	11	10	10 $\frac{1}{2}$	10	9	1			2
46	30	3 50	1 25	10	10	10	6	6				6

MACHINES AND MACHINERY.

1	60	\$2 00	\$1 25	10	10	10	12	12				
2	48	2 50	1 50	10	10	10	12	12				
3	172	2 75	1 60	10	10	10	12	12				
4	205	2 50	1 50	10	10	10	12	12				
5	45	2 50	1 00	10	9	9 $\frac{1}{2}$	12	12				
6	84	2 75	1 50	10	9	9 $\frac{1}{2}$	12	12				
7	30	2 50	1 00	10	10	10	12	12				
8	30	3 00	1 75	10	10	10	10	10				2
9	20	2 00	1 50	10	9	9 $\frac{1}{2}$	12	12				
10	15	2 50	1 25	10	9	9 $\frac{1}{2}$	12	12				
11	45	2 50	1 40	10	10	10	12	12				
12	50	2 50	1 00	10	10	10	12	12				
13	34	2 00	1 50	10	9	9 $\frac{1}{2}$	10	10				2
14	15	2 50	1 50	10	10	10	12	12				
15	75	2 50	1 10	10	8	9	12	12				
16	70	2 25	1 50	10	10	10	12	12				
17	40	2 00	1 50	10	10	10	12	12				
18	10	2 25	2 00	10	10	10	12	12				
19	9	2 00	1 50	10	10	10	12	12				
20	165	2 75	1 75	10	10	10	12	12				
21	45	3 00	2 00	10	10	10	12	12				
22	15	2 50	1 50	10	10	10	12	12				
23	30	2 50	1 50	10	10	10	12	12				
24	55	2 50	1 50	10	10	10	12	12				
25	40	2 50	1 50	10	10	10	12	12				
26	16	2 50	1 50	10	10	10	12	12				
27	23	2 50	1 50	10	10	10	12	12				
28	15	2 25	2 00	10	10	10	9	9				3
29	12	2 50	1 75	12	12	12	12	12				
30	10	2 50	1 75	10	10	10	12	12				
31	8	2 50	2 00	10	10	10	12	12				
32	8	2 25		10	10	10	12	12				
33	12	3 00	2 00	10	10	10	12	12				
34	20	2 50	1 50	10	10	10	12	12				
35	25	2 30	1 50	10	10	10	12	12				

Machines and Machinery—Continued.

Number of establishment.	Average number of employees.....	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.....	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechan'cs	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{2}{3}$ time.	$\frac{1}{2}$ time.	Idle.....
36	12	\$2 10	\$1 50	10	9	9½	12	7	5			
37	20	2 00	1 75	10	10	10	12	12				
38	29	2 25	1 50	10	10	10	12	12				
39	20	2 50	1 25	10	10	10	12	12				
40	25	2 50	1 25	10	10	10	12	12				
41	82	2 50	1 25	10	10	10	10	10				2
42	15	2 50	2 00	10	10	10	12	12				
43	67	2 50	2 00	10	10	10	12	11	1			
44	55	2 25	1 50	10	9	9½	12	12				
45	15	2 50	2 00	10	10	10	12	12				
46	20	2 50	1 25	10	10	10	12	12				
47	12	2 00	1 00	10	10	10	12	12				
48	12	3 50	1 50	10	10	10	12	12				
49	30	2 50	1 50	10	10	10	12	12				
50	370	1 75	1 35	10	9	9½	12	12				
51	40	3 00	1 50	10	10	10	12	12				
52	75	2 75	1 50	10	10	10	12	12				
53	8	2 50	1 50	10	10	10	12	12				
54	55	2 25	1 00	10	10	10	12	12				
55	40	2 25	1 25	10	10	10	12	12				
56	16	2 25	1 75	10	10	10	12	12				
57	25	2 50	1 50	10	10	10	12	12				
58	25	1 75	1 25	10	10	10	12	12				
59	300	2 50	1 50	10	12	11	12	12				
60	125	2 50	1 00	10	10	10	12	12				
61	15	2 00	1 25	11	9	10	12	12				
62	20	2 00	1 00	10	10	10	12	12				
63	80	2 50	1 25	10	10	10	12	12				
64	21	1 50	1 00	10	10	10	12	12				
65	72	2 25	1 10	10	10	10	12	12				
66	30	2 00	1 25	10	10	10	12	12				
67	80	2 25	1 25	10	10	10	12	12				
68	42	2 40	1 15	10	9	9½	12	8	4			
69	13	2 00	1 50	10	8	9	12	8	4			
70	10	2 25	1 25	10	10	10	12	12				
71	55	2 50	1 50	10	10	10	12	12				
72	20	2 00	1 25	10	8	9	12	8			4	
73	30	2 50	1 25	10	10	10	12	8	4			
74	21	2 50	1 50	10	10	10	12	12				
75	26	1 75	1 25	10	10	10	12	12				
76	38	1 75	1 25	10	8	9	10	10				2
77	15	2 50	1 75	10	10	10	12	12				
78	12	2 75	2 00	10	10	10	12	12				
79	10	1 75	.....	10	8	9	12	12				
80	27	2 50	1 50	10	10	10	12	12				
81	9	2 00	.....	10	10	10	12	12				
82	11	2 00	.....	10	10	10	12	12				
83	15	1 87	1 00	10	19	10	12	12				
84	10	2 50	.....	10	10	10	12	12				
85	6	3 50	3 00	10	10	10	12	12				
86	15	3 00	75	10	10	10	12	12				
87	28	2 00	1 00	10	10	10	12	12				

STATISTICS OF LABOR.

MALT.

Number of establishments.	Average number of employes.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle.
1	40	.....	\$1 60	10	10	10	10	10	.....	.....	.....	.....
2	32	.....	1 50	12	12	12	10	10	.....	.....	.....	.....
3	20	.....	1 66	12	12	12	10	10	.....	.....	.....	.....
4	24	\$3 00	2 00	10	10	10	10	10	.....	.....	.....	.....
5	35	2 50	1 50	12	12	12	10	10	.....	.....	.....	.....
6	12	1 75	1 50	10	10	10	10	10	.....	.....	.....	.....
7	12	2 00	1 50	10	10	10	10	10	.....	.....	.....	.....
8	12	2 00	.....	10	10	10	10	10	.....	.....	.....	.....
9	16	2 00	1 50	12	12	12	7	7	.....	.....	.....	.....
10	10	2 50	2 00	10	10	10	10	10	.....	.....	.....	.....

METALS AND METALLIC GOODS.

1	40	\$2 25	\$1 25	10	8	9	12	8	4	.....	.....	.....
2	25	2 60	1 30	10	9	9 $\frac{1}{2}$	12	10	.....	.....	.....	.....
3	45	2 25	1 25	10	9	9 $\frac{1}{2}$	12	9	3	.....	.....	.....
4	40	2 25	1 50	10	10	10	12	12	.....	.....	.....	.....
5	16	2 25	1 25	10	10	10	12	12	.....	.....	.....	.....
6	35	2 50	1 00	10	8	9	11	6	.....	.....	.....	.....
7	225	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....
8	450	2 25	1 35	10	10	10	11	11	.....	.....	.....	.....
9	150	2 50	1 50	10	10	10	11	12	.....	.....	.....	.....
10	240	2 75	1 25	10	10	10	12	12	.....	.....	.....	.....
11	75	2 50	1 35	10	8	9	12	12	.....	.....	.....	.....
12	126	2 35	1 25	10	10	10	12	12	.....	.....	.....	.....
13	90	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....
14	35	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....
15	25	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....
16	30	3 00	1 60	10	10	10	12	12	.....	.....	.....	.....
17	20	2 50	1 75	10	10	10	12	12	.....	.....	.....	.....
18	15	2 50	1 50	10	10	10	11	11	.....	.....	.....	.....
19	24	2 50	1 25	10	10	10	12	12	.....	.....	.....	.....
20	12	2 40	1 25	10	10	10	12	12	.....	.....	.....	.....
21	50	2 75	1 50	10	9	9 $\frac{1}{2}$	12	12	.....	.....	.....	.....
22	69	2 25	1 50	10	8	9	12	7	5	.....	.....	.....
23	75	2 65	1 50	10	10	10	12	12	.....	.....	.....	.....
24	80	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....
25	67	2 50	1 25	10	10	10	12	12	.....	.....	.....	.....
26	90	3 75	1 00	10	10	10	12	12	.....	.....	.....	.....
27	40	2 00	1 30	10	10	10	12	12	.....	.....	.....	.....
28	6	2 75	.....	10	10	10	12	12	.....	.....	.....	.....
29	732	2 50	1 25	10	10	10	12	12	.....	.....	.....	.....
30	33	2 50	1 00	10	10	10	12	12	.....	.....	.....	.....
31	25	2 50	1 25	10	10	10	12	12	.....	.....	.....	.....
32	8	2 00	.....	10	10	10	12	12	.....	.....	.....	.....
33	10	2 25	1 50	10	10	10	12	12	.....	.....	.....	.....
34	131	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....
35	25	2 50	1 00	10	10	10	10	10	.....	.....	.....	.....
36	11	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....
37	70	2 50	1 25	10	8	9	12	12	.....	.....	.....	.....
38	50	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....
39	20	2 50	2 00	10	10	10	12	12	.....	.....	.....	.....
40	24	3 00	1 25	10	10	10	12	12	.....	.....	.....	.....
41	30	3 50	1 50	10	8	9	12	8	4	.....	.....	.....
42	8	2 50	.....	10	10	10	12	12	.....	.....	.....	.....
43	20	2 00	1 25	12	12	12	12	12	.....	.....	.....	.....
44	10	2 00	1 50	10	10	10	12	12	.....	.....	.....	.....
45	16	3 00	1 50	10	10	10	12	12	.....	.....	.....	.....
46	10	2 00	.....	10	10	10	12	12	.....	.....	.....	.....
47	25	2 00	1 50	10	10	10	12	12	.....	.....	.....	.....
48	10	2 25	1 50	10	9	9 $\frac{1}{2}$	12	12	.....	.....	.....	.....
49	10	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....
50	15	2 50	1 50	10	10	10	12	12	.....	.....	.....	.....

TIME AND WAGES.

Metals and Metallic Goods—Continued.

Number of establishments.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED	
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly average.		Full time.	Part time.
1	40	\$2 25	\$1 25	10	9	9½	12	12	
2	15	3 00	1 50	4	8	8	12		
3	13	2 00	1 25	10	9	9½	12	12	
4	13	1 50	1 00	10	9	9½	12	12	
5	40	2 00	1 00	10	10	10	12	12	
6	14	3 00	75	10	9	9½	11	10	
7	14	2 50	2 00	10	10	10	12	12	
8	125	2 25	1 00	10	10	10	11	11	
9	40	2 00	1 00	10	10	10	12	12	
10	5	2 50	1 50	10	9	9½	12	12	
11	18	2 25	1 50	10	10	10	12	12	
12	18	2 25	1 50	10	8	9	12	8	
13	10	2 00	1 50	10	8	9	12	12	
14	179	1 50	1 00	10	10	10	12	12	
15	13	2 50	1 50	10	10	10	12	12	
16	13	2 25	1 25	10	10	10	12	12	
17	130	2 25	1 50	10	10	10	12	12	
18	30	3 00	1 50	10	10	10	12	12	
19	20	1 75	1 00	10	10	10	12	12	
20	20	2 50	1 75	10	9	9½	12	8	
21	19	2 00	1 25	10	10	10	12	12	
22	10	2 25	2 00	10	10	10	10	10	
23	12	2 50	1 00	10	10	10	12	8	
24	175	2 50	1 00	10	10	10	12	12	
25	20	2 50	1 25	10	10	10	12	12	
26	350	2 50	1 00	10	10	10	12	12	
27	300	3 00	1 00	10	10	10	12	12	
28	70	1 75	75	10	10	10	12	12	
29	20	2 00	1 25	10	10	10	12	12	
30	20	2 25	2 00	10	10	10	12	12	
31	60	75	1 25	10	10	10	12	12	
32	15	50	1 00	10	10	10	12	12	
33	13	50	1 50	10	10	10	12	12	
34	16	50	1 50	10	10	10	12	12	
35	50	50	1 25	10	10	10	12	12	
36	15	50	2 00	10	9	9½	12	9	
37	14	50	1 25	10	10	10	12	12	
38	18	50	1 00	10	10	10	12	12	
39	40	50	60	10	10	10	12	12	
40	14	50	1 00	10	10	10	12	12	
41	8	00	1 00	10	10	10	12	12	
42	78	25	1 50	10	10	10	11	11	
43	20	00	1 50	10	10	10	12	12	
44	17	00	1 65	9	9	9	12	12	
45	25	00	1 50	10	9	9½	12	10	
46	25	00	1 00	10	10	10	10	10	
47	25	50	1 00	10	9	9½	12	8	
48	15	75	1 25	10	10	10	12	8	
49	19	00	1 50	9	9	9	12	12	
50	10	50	1 00	10	9	9½	12	12	
51	100	75	1 00	9	8	8½	12	10	
52	28	00	1 00	10	10	10	12	12	
53	20	50	1 50	10	10	10	12	12	
54	23	50	1 50	10	10	10	12	12	
55	45	50	1 50	10	10	10	8	8	
56	27	50	1 50	10	9	9½	11	9	
57	50	25	1 88	10	10	10	11	10	
58	21	25	1 75	10	10	10	12	12	
59	16	00	1 75	9	9	9	12	12	
60	10	50	1 00	8	8	8	12	12	
61	23	50	1 00	10	10	10	12	12	
62	7	50	1 50	10	10	10	12	12	
63	25	50	1 25	10	10	10	11	11	
64	10	50	1 25	10	10	10	12	12	
65	15	50	1 25	10	10	10	12	12	

Metals and Metallic Goods—Continued.

Number of es- tablishment.	Average num- ber of em- ployes	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each estab- lishment	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Aver- age.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle...
117	18	\$1 50	\$1 35	10	10	10	12	12				
118	24	2 00	1 00	10	10	10	12	12				
119	9	3 00	1 50	10	10	10	12	12				
120	82	2 24	1 00	10	10	10	11	11				1
121	100	2 50	1 35	10	10	10	12	12				
122	10	2 50	1 25	10	10	10	12	12				
123	80	2 00	1 25	10	10	10	12	12				
124	35	2 50	1 25	10	9	9½	12	12				
125	125	2 25	1 35	10	10	10	12	12				
126	43	2 25	1 50	10	10	10	12	12				
127	15	2 50	1 00	10	8	9	11	8	3			1
128	68	2 00	1 25	10	10	10	12	12				
129	55	2 50	1 50	10	10	10	11	11				1
130	550	4 50	1 20	12	12	12	12	12				
131	40	2 25	1 50	12	12	12	12	12				
132	40	3 00	1 25	10	9	9½	6	6				6
133	12	2 00	1 37	10	9	9½	12	12				
134	12	2 00	1 25	10	10	10	12	12				
135	35	2 25	1 50	10	10	10	12	12				
136	11	2 25	1 50	10	8	9	12	12				
137	20	2 50	1 35	10	8	9	12	7	5			
138	16	2 25	2 00	10	10	10	12	12				
139	20	3 00	1 75	12	12	12	12	12				
140	20	2 25	1 50	10	10	10	12	12				
141	10	2 25	1 50	10	10	10	12	9	3			
142	12	4 00	1 50	10	10	10	12	8	4			
143	60	2 25	1 60	12	12	12	12	12				
144	10	2 75	2 25	10	9	9½	12	12				
145	21	2 25	1 25	10	9	9½	12	12				
146	75	2 25	1 25	10	9	9½	12	8	4			
147	80	2 40	1 30	10	10	10	12	12				
148	60	2 25	1 40	10	10	10	12	12				
149	75	2 00	1 25	10	10	10	12	11				1
150	13	2 50	1 37	10	10	10	12	12				
151	28	2 50	1 50	10	10	10	12	8		4		
152	12	2 50	1 50	10	9	9½	12	12				
153	8	2 25	1 50	10	10	10	12	12				
154	225	4 00	1 25	11	11	11	7	7				5
155	60	2 00	1 00	10	9	9½	12	9	3			
156	15	3 00	1 50	10	10	10	12	12				
157	40	1 25	60	10	10	10	10	10				2
158	200	3 00	1 40	10	10	10	12	12				
159	60	2 50	1 50	10	10	10	12	12				
160	65	2 50	1 50	10	10	10	12	12				
161	25	2 25	1 25	10	10	10	12	12				
162	18	2 25	1 25	10	10	10	12	10	2			
163	10	2 25	1 00	10	10	10	12	12				
164	20	2 25	1 25	12	12	12	12	12				
165	90	1 75	1 00	10	9	9½	12	8	4			
166	45	2 00	1 35	10	10	10	12	12				
167	60	2 25	1 50	12	12	12	12	12				
168	18	2 00	1 00	10	10	10	12	12				
169	20	1 50	1 25	10	9	9½	12	12				
170	60	2 50	1 50	12	12	12	12	12				
171	10	2 25	1 50	12	12	12	12	12				
172	40	2 40	1 25	10	10	10	12	12				
173	40	1 75	1 00	10	10	10	12	12				
174	40	2 00	1 38	10	10	10	12	12				
175	16	2 00	1 50	10	10	10	12	12				
176	40	4 00	1 25	10	10	10	12	12				
177	40	1 50	1 00	10	10	10	12	12				
178	67	1 75	75	10	10	10	12	12				

Metals and Metallic Goods—Continued.

Number of establishment.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechanics.	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle.
173	538	\$3 65	\$1 25	11	11	11	7 $\frac{1}{2}$	7 $\frac{1}{2}$				4 $\frac{1}{2}$
180	85	5 00	1 25	11 $\frac{1}{2}$	11 $\frac{1}{2}$	11 $\frac{1}{2}$	12	12				
181	600	3 50	1 25	9 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	7	7				5
182	120	4 00	1 25	9 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{1}{2}$				4 $\frac{1}{2}$
183	725	2 80	1 25	10	10	10	11	11				
184	200	5 00	1 00	10	10	10	7	7				5
185	200	4 00	1 50	10	10	10	11	11				1
186	654	4 10	1 28	9 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	10 $\frac{1}{2}$	10 $\frac{1}{2}$				1 $\frac{1}{2}$
187	780	3 60	1 63	11	11	11	10	10				2
188	60	2 50	1 25	10	10	10	12	12				
189	75	3 50	1 50	12	12	12	3	3				9
190	712	3 62	1 12	10	10	10	12	12				
191	175	2 00	1 25	12	12	12	11	11				1
192	98	2 75	1 75	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12	12				
193	225	1 95	1 15	11 $\frac{1}{2}$	11 $\frac{1}{2}$	11 $\frac{1}{2}$	9	9				9
194	10	2 00	1 50	10	10	10	12	12				
195	24	2 50	1 00	10	10	10	12	12				
196	32	2 00	75	10	8	9	12	12				
197	25	1 50	1 00	10	10	10	12	12				

MUSICAL INSTRUMENTS AND MATERIALS.

1	36	\$2 50		10	10	10	12	12				
2	12	2 75		10	10	10	12	12				
3	80	2 00	\$1 25	10	10	10	12	12				
4	31	2 00	1 50	10	10	10	12	12				
5	16	2 00	1 00	10	8	9	12	10			2	
6	22	2 50	1 75	10	10	10	12	12				
7	19	2 50	1 50	10	10	10	12	12				
8	20	2 00	1 50	10	10	10	12	12				
9	80	2 50	1 25	10	8	9	12	12				
10	13	2 25	1 00	10	10	10	11	11				1

PAINTS AND OILS.

1	56	\$3 00	\$2 00	10	10	10	12	12				
2	4	2 00	1 00	10	8	9	12	12				
3	15	1 66		10	10	10	12	12				
4	18	2 00	1 50	10	10	10	12	12				
5	25	2 50	1 50	10	8	9	12	12				
6	30	2 00		10	9	9 $\frac{1}{2}$	12	12				
7	16	2 50	1 25	10	10	10	12	12				
8	15	1 50	75	10	10	10	12	12				
9	25	2 50	1 50	10	10	10	12	12				
10	31	1 85	1 65	11	11	11	12	12				
11	25	2 00	1 00	10	10	10	12	12				
12	48	2 50	1 50	10	10	10	12	12				
13	30	3 00	1 00	10	10	10	10	10			2	
14	13	5 00	1 37	10	10	10	10	10			2	
15	15	1 50		12	12	12	12	12				
16	13	2 25	1 45	11	11	11	12	12				

PAPER.

Number of establishment.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTH.				
		Skilled Mechanics.	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.	Idle.
1	53	\$2 00	\$1 42	12	12	12	11	9	2			1
2	80	2 00	1 25	10	10	10	12	12				
3	19	1 00	1 50	12	12	12	10	10				
4	26	1 50	1 25	12	12	12	12	12				
5	20		1 10	10	10	10	12	12				
6	27	1 50	1 25	12	12	12	12	12				
7	17		1 35	12	12	12	12	12				
8	22		1 25	12	12	12	12	12				
9	40		1 25	12	12	12	12	10				
10	35	1 25	1 25	12	10	11	12	12				
11	51		1 25	12	12	12	12	12				
12	45	1 85	1 35	12	12	12	10	10				
13	42	1 75	1 25	12	12	12	10	8	1			
14	28	1 00	1 25	12	12	12	12	12				
15	13	2 00	1 25	10	11	10 $\frac{1}{2}$	9	4				
16	20	1 50	1 35	12	12	12	12	12				
17	40	1 50	1 25	12	12	12	12	12				
18	33	1 50	1 50	12	12	12	9	9				
19	26		1 25	10	10	10	11	7				
20	24		1 37	12	12	12	12	12				
21	85		1 40	10	10	10	11	11				
22	35		1 25	10	10	10	12	12				

PHOTOGRAPHS AND OTHER LIKENESSES.

1	7	\$3 00	\$2 00	8	8	8	12	12				
2	8	2 50		10	10	10	12	12				
3	10	3 00	2 00	10	10	10	12	12				
4	24	5 00	2 50	10	10	10	12	12				
5	10	4 00	3 00	8	8	8	12	12				
6	15	2 50	75	8	8	8	12	12				
7	8	3 00	2 00	10	9	9 $\frac{1}{2}$	12	12				
8	8	2 00	1 00	10	8	9	12	12				
9	9	3 00	2 00	8	10	9	12	12				

PRINTING AND PUBLISHING.

1	194	\$3 50		8	8	8	12	12				
2	72	2 75		9	9	9	12	12				
3	196	2 25		10	10	10	12	12				
4	120	2 75		10	10	10	12	12				
5	69	2 75	\$1 50	9	9	9	12	12				
6	40	2 50	1 50	10	10	10	12	12				
7	16	2 00	1 00	10	10	10	12	12				
8	52	2 50	1 50	10	10	10	12	12				
9	45	2 50		10	10	10	12	12				
10	108	3 00	1 50	9	9	9	12	12				
11	8	2 50	2 25	9	9	9	12	12				
12	6	3 00	2 50	10	10	10	12	12				
13	14	3 00	1 25	9	8	8 $\frac{1}{2}$	12	12				
14	7	2 50	2 00	10	10	10	12	12				
15	31	3 00	1 25	10	10	10	12	12				
16	25	3 00	1 50	10	10	10	12	12				
17	9	3 00	2 00	10	10	10	12	12				
18	6	3 00		10	10	10	12	12				
19	17	3 00	1 00	9	9	9	12	12				
20	16	3 00	1 00	10	10	10	12	12				

Printing and Publishing—Continued.

Number of establishment.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechan's.	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{2}{3}$ time.	$\frac{1}{2}$ time.	Idle.
21	16	\$1 50	\$1 25	10	10	10	12	12				
22	21	2 00		10	10	10	12	12				
23	120	1 50		10	10	10	4	4				8
24	50	2 50	1 25	10	10	10	12	12				
25	40	2 50	1 25	10	10	10	12	12				
26	50	1 50	1 25	10	10	10	12	12				
27	32	2 00	1 50	10	10	10	12	12				
28	16	2 00	1 00	10	10	10	12	12				
29	14	2 50	1 50	10	10	10	12	12				
30	38	2 50	1 50	10	10	10	12	12				
31	33	3 00	1 00	10	9	9½	8	8				4
32	23	3 00	1 00	10	10	10	12	12				
33	20	3 00	1 00	10	10	10	12	12				
34	28	3 00	1 00	10	10	10	12	12				
35	90	2 00	1 00	10	10	10	12	12				
36	85	3 00	1 25	10	10	10	12	12				
37	10	3 00	1 00	10	10	10	12	12				
38	17	3 00	1 00	10	10	10	12	12				
39	15	2 00	1 50	10	10	10	12	12				
40	21	3 00	1 00	10	10	10	12	12				
41	17	2 50	1 75	10	9	9½	12	12				
42	44	3 50	1 75	10	10	10	12	12				
43	40	3 75	2 00	10	10	10	12	12				
44	25	2 50	2 00	10	10	10	12	12				
45	25	2 50	1 50	10	10	10	12	12				
46	19	2 50	1 50	10	10	10	12	12				
47	18	2 00	1 00	10	10	10	12	12				
48	66	2 55	1 00	10	10	10	12	12				
49	50	3 00	85	10	10	10	12	12				
50	211	3 00	1 00	10	10	10	12	12				
51	24	3 00	1 25	10	10	10	12	12				
52	10	3 00	1 50	10	10	10	12	12				
53	20	1 50	1 00	10	10	10	12	12				
54	70	2 75	1 75	10	10	10	12	12				
55	30	2 50	1 00	10	10	10	12	12				
56	21	2 50	1 00	10	10	10	12	12				
57	42	3 00	1 00	10	10	10	12	12				
58	60	2 50	1 00	10	10	10	12	12				
59	240	3 50	1 20	10	10	10	12	12				
60	115	1 50	1 00	10	10	10	12	12				
61	20	2 00	1 00	10	10	10	12	12				
62	12	1 50		10	10	10	12	12				
63	11	3 00	1 50	10	10	10	12	12				
64	12	3 00	1 00	10	10	10	12	12				
65	11	2 00	1 75	10	10	10	12	12				
66	100	2 75	1 00	10	10	10	12	12				
67	91	3 00	1 25	10	10	10	12	12				
68	100	2 50	1 25	10	10	10	12	12				
69	44	3 00	2 18	10	10	10	12	12				
70	60	3 00	1 00	10	10	10	12	12				
71	30	2 50	75	10	10	10	12	12				
72	19	2 75	1 50	10	10	10	12	12				
73	15	3 00	2 00	10	10	10	12	12				
74	22	2 50	75	10	10	10	12	12				
75	11	3 00	1 00	10	9	9½	12	12				
76	22	3 00	1 50	10	10	10	12	12				
77	7	3 50	1 00	8	8	8	12	12				
78	10	3 50		8	8	8	12	12				
79	10	3 00	2 00	9	9	9	12	12				
80	20	2 50	2 00	9	9	9	12	12				
81	10	4 00	2 50	8	8	8	12	12				
82	15	2 50	2 00	9	9	9	12	12				
83	10	3 00	1 75	10	10	10	12	12				
84	20	2 50	2 00	10	10	10	9	9				3

Printing and Publishing—Continued.

Number of establishments.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.			
		Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.
85	78	\$4 00	\$2 00	9	9	9	12	12			
86	24	2 75	1 00	10	10	10	12	12			
87	26	3 00	1 00	10	10	10	12	12			
88	19	2 50	1 50	10	10	10	12	12			
89	75	6 00	3 00	9	9	9	12	12			
90	12	2 50	1 33	10	10	10	12	12			
91	42	3 50	1 50	9	9	9	12	12			
92	16	2 40	1 00	10	10	10	12	12			
93	15	2 00	1 25	10	10	10	12	12			
94	18	2 50	1 25	10	10	10	12	12			
95	20	3 00	2 25	10	10	10	12	12			
96	14	2 00	1 25	10	10	10	12	12			
97	20	2 50	1 75	10	10	10	12	12			
98	18	2 00	1 00	10	10	10	12	12			
99	20	1 75	1 00	9	9	9	12	12			
100	15	2 50	1 00	10	10	10	12	12			
101	30	2 33	1 00	10	10	10	12	11	1		
102	13	2 00	1 50	12	12	12	12	12			
103	12	2 50	1 00	8	8	8	12	12			
104	8	2 00		10	10	10	12	12			
105	51	2 50	1 00	10	10	10	12	12			
106	35	3 00	1 00	10	10	10	12	12			
107	15	2 00	1 00	10	10	10	12	12			
108	30	2 00	75	10	10	10	12	12			
109	11	2 50	1 50	10	10	10	12	12			
110	11	2 00	1 50	10	10	10	12	12			
111	26	2 75	1 00	10	10	10	12	12			
112	65	2 00	50	10	10	10	6	6			
113	44	3 00	1 25	10	10	10	12	12			
114	28	3 00	1 50	10	10	10	12	12			
115	29	2 00	1 00	10	10	10	12	12			
116	17	2 00		10	10	10	12	12			
117	35	1 42	1 25	10	10	10	12	12			
118	24	1 75	1 25	10	10	10	12	12			
119	15	1 75		10	10	10	12	12			
120	19	2 00	1 00	10	10	10	12	12			
121	19	1 50	1 00	10	10	10	12	12			
122	12	2 00	1 00	10	10	10	12	12			
123	31	3 50	1 50	10	9	9½	12	12			

RAILROAD AND OTHER CARS AND MATERIALS.

1	120	\$2 50	\$1 50	10	10	10	12	12			
2	30	4 00	1 75	10	10	10	12	12			
3	140	2 50	1 25	10	10	10	12	12			
4	16	2 50	1 50	10	9	9½	10	10			
5	430	2 40	1 25	10	10	10	12	12			
6	20	2 50	1 75	10	10	10	12	12			
7	100	2 25	2 00	10	10	10	12	12			
8	72	2 00	1 50	10	10	10	12	12			
9	20	2 25		10	9	9½	12	12			
10	40	2 00	1 10	10	10	10	10	10			
11	87	2 25	1 00	9	9	9	12	12			
12	300	2 25	1 15	10	8	9	12	10	2		
13	124	2 00	1 00	10	10	10	12	12			
14	51	2 50	1 75	10	10	10	12	12			

SOAPS.

Number of employees.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechan's.	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{2}{3}$ time.	$\frac{1}{2}$ time.	Idle.
1	250	\$2 50	\$1 00	10	10	10	12	12				
1	50	3 00	1 50	10	10	10	12	12				
1	12	2 00	1 50	10	10	10	12	12				
1	30	2 75	1 50	10	10	10	12	12				
1	45	1 75	75	10	10	10	12	12				
1	45	5 00	1 25	10	10	10	12	12				
1	20	3 00	1 00	10	10	10	12	12				
1	12	2 50	1 50	10	10	10	12	12				
1	9	3 00	2 00	10	10	10	12	12				
1	15	2 00	1 00	10	10	10	12	12				

STONE.

Number of employees.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechan's.	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{2}{3}$ time.	$\frac{1}{2}$ time.	Idle.
1	50	\$2 25	\$1 00	10	10	10	9	9				3
1	90	2 50	1 50	10	8	9	12	9				
1	40	3 00	1 75	8	8	8	12	10				
1	50	3 00	1 50	9	9	9	11	8				1
1	100	3 00	1 25	9	10	9 $\frac{1}{2}$	8	8				4
1	120	2 50	1 40	10	9	9 $\frac{1}{2}$	19	10				
1	20	3 00	1 60	10	9	9 $\frac{1}{2}$	12	9				
1	30	2 50	1 50	8	8	8	12	12				
1	14	3 00	1 75	8	8	8	10	10				3
1	27	2 50	1 50	10	10	10	12	12				
1	55	3 00	1 50	8	8	8	12	12				
1	122	2 50	1 00	8	8	8	9	9				3
1	14	2 50	1 50	8	8	8	10	10				2
1	12	3 00	1 50	8	8	8	12	12				
1	40	2 00	1 75	10	10	10	11	11				1
1	15	2 20	1 40	10	8	9	12	12				
1	40	2 00	1 50	10	8	9	12	8				
1	24	3 00	2 00	8	8	8	10	10				2
1	15	2 50	2 00	10	8	9	12	8				
1	16	2 00	1 50	10	10	10	12	12				
1	18	2 25	1 50	10	10	10	6	6				6
1	7	3 00	1 50	10	10	10	12	12				
1	12	3 00	1 50	10	10	10	12	12				
1	13	2 00	1 50	10	10	10	12	11				1
1	12	2 50	1 66	10	10	10	12	12				
1	7	2 25	1 50	10	10	10	12	12				
1	10	2 50	1 75	10	8	9	9	7				3
1	65	2 25	1 25	10	9	9 $\frac{1}{2}$	12	9				
1	54	3 50	51	10	9	9 $\frac{1}{2}$	12	12				
1	54	3 00	50	10	9	9 $\frac{1}{2}$	12	12				

TOBACCO.

Number of employees.	Average number of employees.	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment.	TIME EMPLOYED, IN MONTHS.				
		Skilled Mechan's.	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	$\frac{3}{4}$ time.	$\frac{2}{3}$ time.	$\frac{1}{2}$ time.	Idle.
1	178	\$2 00	\$1 00	10	10	10	11	11				1
1	115	2 00	1 00	10	9	9 $\frac{1}{2}$	8	8				4
1	125	2 25	1 00	10	10	10	12	12				
1	160	2 00	1 00	10	10	10	12	12				
1	33	2 50	1 00	10	10	10	12	12				
1	60	2 00	60	10	10	10	12	12				
1	275	2 50	1 25	10	9	9 $\frac{1}{2}$	12	12				

STATISTICS OF LABOR.

VESSELS, SAILS, ETC.

Number of es- tablishment..	Average num- ber of em- ployes	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each estab- lishment	TIME EMPLOYED. IN MONTHS.			
		Skilled Mechan'cs	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Aver- age.		Full time.	$\frac{3}{4}$ time.	$\frac{1}{2}$ time.	$\frac{1}{4}$ time.
1	80	\$2 50	\$1 50	10	10	10	12	12	.....	.....	.....
2	60	2 50	1 75	10	10	10	12	12	.....	.....	.....
3	40	3 00	1 50	10	8	9	8	12	.....	.....	.....
4	82	2 50	1 00	10	10	10	12	12	.....	.....	.....
5	12	2 50	.....	10	9	9½	10	10	.....	.....	.....
6	22	3 00	50	10	10	10	12	12	.....	.....	.....
7	10	2 50	1 50	10	10	10	12	12	.....	.....	.....
8	12	3 00	1 50	10	10	10	10	10	.....	.....	.....
9	30	3 00	1 50	10	10	10	10	10	.....	.....	.....
10	11	2 50	1 25	10	10	10	12	12	.....	.....	.....
11	42	2 50	1 25	10	10	10	11	11	.....	.....	.....

WOODEN GOODS.

1	50	\$3 00	\$1 05	10	10	10	9	6	.....	.....	3
2	31	2 00	1 25	10	10	10	11	11	.....	.....	.....
3	33	2 00	1 00	10	10	10	11	11	.....	.....	.....
4	23	2 50	1 00	10	10	10	12	12	.....	.....	.....
5	12	2 00	1 50	10	9	9½	12	12	.....	.....	.....
6	17	2 00	1 35	10	10	10	12	12	.....	.....	.....
7	60	2 50	1 00	10	10	10	12	12	.....	.....	.....
8	60	2 50	1 25	10	10	10	12	12	.....	.....	.....
9	70	2 25	1 00	10	9	9½	12	10	2	.....	.....
10	33	2 00	1 00	10	8	9	12	11	.....	1	.....
11	28	2 25	1 10	10	10	10	12	12	.....	.....	.....
12	25	2 00	75	10	10	10	11	12	.....	.....	.....
13	30	2 00	1 50	10	8	9	12	12	.....	.....	.....
14	160	2 25	1 00	9	10	9½	12	12	.....	.....	.....
15	15	2 00	1 25	10	10	10	12	12	.....	.....	.....
16	45	2 50	1 25	10	10	10	12	12	.....	.....	.....
17	65	2 50	1 25	10	10	10	12	10	2	.....	.....
18	9	2 25	2 00	10	10	10	12	12	.....	.....	.....
19	80	2 00	75	10	10	10	12	12	.....	.....	.....
20	25	1 75	1 25	10	10	10	13	12	.....	.....	.....
21	90	2 00	1 25	10	10	10	12	12	.....	.....	.....
22	30	2 25	1 25	10	9	9½	12	12	.....	.....	.....
23	50	1 90	1 15	10	9	9½	12	12	.....	.....	.....
24	48	1 50	1 25	10	10	10	12	11	1	.....	.....
25	56	1 75	1 25	10	8	9	12	7	5	.....	.....
26	37	1 75	1 25	10	10	10	12	12	.....	.....	.....
27	30	3 00	1 50	10	9	9½	12	12	.....	.....	.....
28	50	2 50	1 50	10	9	1½	12	10	2	.....	.....
29	27	2 25	1 75	10	8	9	12	12	.....	.....	.....
30	15	2 50	1 00	10	8	9	12	12	.....	.....	.....
31	38	2 50	1 75	10	8	9	12	12	.....	.....	.....
32	30	2 00	1 75	10	10	10	12	12	.....	.....	.....
33	25	2 00	1 25	10	9	9½	12	9	3	.....	.....
34	33	2 50	1 25	10	9	9½	12	8	2	2	.....
35	525	2 25	1 00	10	10	10	12	12	.....	.....	.....
36	190	2 00	1 25	10	10	10	12	12	.....	.....	.....
37	52	2 37	1 35	10	9	9½	12	8	4	.....	.....
38	40	2 50	1 60	10	10	10	9	9	.....	.....	.....
39	250	2 00	1 50	10	9	9½	12	9	3	.....	.....
40	65	2 25	1 37	10	9	9½	12	12	.....	.....	.....
41	40	2 25	1 00	10	9	9½	12	9	3	.....	.....
42	60	2 25	1 37	10	9	9½	12	9	3	.....	.....
43	87	2 00	1 25	10	10	10	12	12	.....	.....	.....
44	16	1 75	1 50	10	9	9½	12	10	.....	2	.....
45	15	2 50	.....	10	10	10	12	9	.....	3	.....
46	15	2 50	1 50	10	10	10	12	12	.....	.....	.....
47	20	2 00	1 25	10	8	9	12	12	.....	.....	.....

Wooden Goods—Continued.

No. of months employed in each establishment	AVERAGE DAY'S WAGES FOR		HOURS OF LABOR.			No. of months employed in each establishment	TIME EMPLOYED, IN MONTHS.				
	Skilled Mechanics	Ordinary Laborers.	May to Nov.	Nov. to May.	Yearly Average.		Full time.	3/4 time.	1/2 time.	1/4 time.	Idle
12	\$1 75		10	10	10	12	12				
12	2 00	\$1 00	10	10	10	12	12				
15	2 00	1 50	10	10	10	12	12				
20	1 58		10	10	10	12	12				
25	2 50	1 50	10	10	10	12	12				
30		1 50	10	10	10	12	12				
35	2 00		10	8	9	12	12				
40	1 75	1 50	10	10	10	11	11				1
45	1 50		12	10	11	12	12				
50	1 50		10	10	10	12	12				
55	2 00	1 00	10	10	10	12	12				
60	1 75	1 55	10	8	9	12	12				
65	1 75	1 25	10	10	10	12	12				
70	2 00	1 50	10	10	10	12	12				
75	1 75	1 25	10	8	9	12	12				
80	2 00	1 25	10	10	10	12	12				
85	2 50	1 75	10	8	9	12	12				
90	2 25	1 25	10	9	9 1/2	11	9	2			1
95	1 25		10	10	10	12	12				
100	1 75	1 00	10	10	10	12	12				
105	2 25	1 00	10	9	9 1/2	12	12				
110	2 00	1 25	10	9	9 1/2	12	12				
115	2 50	1 25	10	10	10	12	12				
120	2 00	1 25	10	9	9 1/2	12	12				
125	2 10	1 50	10	8	9	11	6	5			1
130	2 00		10	8	9	11	7		4		1
135	1 50		10	10	10	10	8			2	2
140	1 50		12	12	12	6	6				6
145	1 50	1 13	11	11	11	12	12				
150	2 00		10	10	10	12	12				
155	1 50	1 25	10	10	10	12	12				
160	1 75		10	10	10	12	12				
165	1 50	1 00	10	10	10	12	12				
170	1 75	1 25	10	10	10	12	12				
175	1 75		10	10	10	12	12				
180	3 00	2 00	10	10	10	12	12			6	
185	2 50	1 00	10	8	9	12	12				
190	2 00	1 25	10	8	9	12	12				
195	2 00	1 50	10	9	9 1/2	12	12				
200	1 50	1 00	10	10	10	12	12				
205	1	1 50	10	10	10	12	12				
210	1 75		10	10	10	11	11				1
215	1 50		10	10	10	9	9				3
220	1 25		10	10	10	12	6		6		
225	2 00		10	10	10	11	11				1
230	2 25	1 75	10	10	10	12	12				
235	2 00	1 50	12	10	11	12	12				
240	1 75	1 25	10	9	9 1/2	12	6	6			
245	2 00	1 50	10	10	10	12	12				
250	2 00	1 25	10	8	9	12	6	6			
255	3 00	50	10	9	9 1/2	12	12				
260	2 75	2 00	10	8	9	12	12				

CLASSIFIED WAGES OF LABOR.

In the following tables are shown the wages paid to skilled mechanics and to ordinary laborers, classified by average daily wages for each industry. The figures here used are drawn of course from the preceding table of Time and Wages. These succeeding tables present in a very clear manner the wages paid in all the different industries, and the number of establishments paying each particular rate. It will be seen that 67 different rates of daily wages, running from fifty cents to six dollars, obtain among skilled mechanics; and 48 different rates, running from thirty cents to three dollars, among ordinary laborers. The industry with the widest range in this respect is the manufacture of clothing, there being one establishment of this kind with the lowest, and one with the highest rate.

CLASSIFIED WAGES OF SKILLED

[illegible]

STATISTICS OF LABOR.

Classified Wages of Skilled

NUMBER OF ESTABLISHMENTS IN—												
Furniture	118	1	1	1	1	1	1	1	1	1	1	1
Food Preparations.	56	1	1	1	1	1	1	1	1	1	1	1
Flour and Meal. ...	97	1	8	3	1	1	1	1	1	1	1	1
Drugs and Medi- cines.....	9	1	1	1	1	1	1	1	1	1	1	1
Cured and Packed Meats.....	54	1	1	1	1	1	1	1	1	1	1	1
Cooking and Heat- ing Apparatus	20	1	1	1	1	1	1	1	1	1	1	1
Clothing.....	120	3	1	1	1	1	1	1	1	1	1	1
Clocks and Watches	5	1	1	1	1	1	1	1	1	1	1	1
Cigars.....	39	1	1	1	1	1	1	1	1	1	1	1
Chemical Prepara- tions	11	1	1	1	1	1	1	1	1	1	1	1
Carriages and Wag- ons.....	83	1	1	1	1	1	1	1	1	1	1	1
Buildings.....	107	1	1	1	1	1	1	1	1	1	1	1
Brooms and Brush's	8	1	1	1	1	1	1	1	1	1	1	1
Brick	51	1	1	1	1	1	1	1	1	1	1	1
Boxes.....	32	1	1	1	1	1	1	1	1	1	1	1
Boots and Shoes ...	30	1	1	1	1	1	1	1	1	1	1	1
Agricultural Imple- ments	74	1	1	1	1	1	1	1	1	1	1	1
Average Daily Wages....	Tot's	82	52	35	10	55	55	55	55	55	55	55

CLASSIFIED WAGES OF ORDINARY

[illegible]

Classified Wages of Ordinary

Average Daily Wages	NUMBER OF ESTABLISHMENTS IN—													
	Agricultural Imple- ments.....	Boots and Shoes. . .	Boxes.	Brick	Brooms and Brushes	Buildings.....	Carriages and Wag- ons	Chemical Prepara- tions	Cigars.	Clocks and Watches	Clothing.....	Cooking and Heat- ing Apparatus....	Cured and Packed Meats.....	Drugs and Medi- cines.....
\$1 70														
1 75	1	4	1	2		11	4		1		1		18	5
1 88														
2 00	1	1		7		9	4		2	1	15	2	1	2
2 18														
2 25				1										
2 50											1		1	
3 00														
Not giv'n				11	2	10	11		3		16		3	1
Tot's	74	30	32	51	8	107	83	11	39	5	120	20	54	97

The detailed exhibits of the last two tables may be condensed as shown in the next. Here we find, in relation to the skilled workers, that 208 establishments, or 12+ per cent. of the whole, pay an average daily wage of \$1.75 or less; that 844 establishments, or 50+ per cent., pay \$2.25 or less; that 1,265 establishments, or 76 per cent., pay \$2.50 or less, and that the number of establishments paying \$3.00 or more per day is but 272, or 16+ per cent. As to the ordinary laborers, 853 establishments, or 51+ per cent., pay less than \$1.50, and 418 establishments, or 25+ per cent., pay exactly \$1.50. The second table—Classified Wages of Employés, by Industries—exhibits the establishments by two rates of pay each for the skilled and unskilled classes.

CLASSIFIED WAGES OF EMPLOYES, BY GROUPS.

Average Daily Wage.	ESTABLISHMENTS.	
	Skilled. Mechanics.	Ordinary Laborers.
Under \$1.....	4	60
\$1 to \$1.50.....	24	793
\$1.50.....	67	418
Above \$1.50, but under \$1.75.....	10	36
\$1.75.....	103	99
Above \$1.75, but under \$2.....	14	1
\$2.....	409	95
Above \$2, but under \$2.25.....	10	1
\$2.25.....	203	5
Above \$2.25, but under \$2.50.....	19	
\$2.50.....	402	3
Above \$2.50, but under \$3.....	92	
\$3.....	186	2
Above \$3.....	86	
Not given.....	37	153
Totals.....	1,666	1,666

CLASSIFIED WAGES OF EMPLOYES BY INDUSTRIES.

Industries.	ESTABLISHMENTS PAY- ING SKILLED ME- CHANICS AN AVER'GE DAILY WAGE—			ESTABLISHM'NTS PAY- ING ORDINARY LA- BORERS AN AVERAGE DAILY WAGE—		
	Less than \$2.50.....	\$2.50 and over.....	Total.....	Less than \$1.50.....	\$1.50 and over.....	Total.....
Agricultural implements.....	58	16	74	54	20	74
Boots and shoes.....	22	8	30	20	10	30
Boxes.....	18	13	31	25	7	32
Brick.....	27	23	50	17	23	40
Brooms and brushes.....	7	1	8	6		6
Buildings.....	56	51	107	25	72	97

Classified Wages of Employes by Industries--Continued.

Industries.	ESTABLISHM'NTS PAY- ING SKILLED ME- CHANICS AN AVER'GE DAILY WAGE—			ESTABLISHM'NTS PAY- ING ORDINARY LA- BORERS AN AVERAGE DAILY WAGE—		
	Less than \$2.50.....	\$2.50 and over	Total.....	Less than \$1.50.....	\$1.50 and over	Total.....
Carriages and wagons.....	53	30	83	50	22	72
Chemical preparations.....	7	3	10	9	2	11
Cigars.....	29	10	39	25	11	36
Clocks and watches .....	.....	5	5	2	3	5
Clothing.....	59	56	115	77	27	104
Cooking and heating apparatus.....	3	17	20	6	14	20
Cured and packed meats.....	20	34	54	8	43	51
Drugs and medicines.....	3	6	9	5	3	8
Flour and meal.....	21	76	97	55	42	97
Food preparations.....	30	26	56	37	17	54
Furniture.....	88	30	118	56	52	108
Leather.....	29	10	39	13	19	32
Lumber.....	26	19	45	39	7	46
Machines and machinery	36	51	87	32	50	82
Malt.....	4	3	7	.....	8	8
Metals and metallic goods	96	101	197	107	79	186
Musical instruments and materials.....	5	5	10	4	4	8
Paints and oils	9	7	16	7	6	13
Paper.....	13	.....	13	20	2	22
Photographs and other likenesses.....	1	8	9	2	6	8
Printing and publishing.....	35	88	123	66	44	110
Railroad and other cars and materials	8	6	14	6	7	13
Soaps.....	3	7	10	5	5	10
Stone.....	9	22	31	9	21	30
Tobacco.....	5	2	7	7	.....	7
Vessels, sails, etc.....	.....	11	11	4	6	10
Wooden goods	83	21	104	55	28	83
Woolen goods .....	.....	.....	.....	.....	.....	.....
Totals	863	766	1,629	853	660	1,513

NOTE.—Establishments, the average daily wages of whose employes were not reported, are omitted from this table; these embraced 37 as to skilled mechanics, and 153 as to ordinary laborers.

Considered simply with reference to the skilled class, and dividing the establishments into two groups—those which pay an average daily wage less than \$2.50, and those which pay \$2.50 and over—the following table exhibits the per cent. for each industry belonging to each group.

It is seen by this table that all the establishments manufacturing clocks and watches, and vessels, sails, etc., pay \$2.50 or over; also, that 85 per cent. of the establishments producing cooking and heating apparatus, 78+ per cent. producing flour and meal, 88+ per cent. producing photographs, etc., 70 per cent. producing soaps, 70+ per cent. producing stone, and 71+ per cent. engaged in printing and publishing, fall into this group.

On the other hand, all the 13 establishments engaged in paper making pay a daily average wage less than \$2.50; likewise, 78+ per cent. of the establishments producing agricultural implements,

73+ per cent. producing boots and shoes, 87+ per cent. producing brooms and brushes, 70 per cent. producing chemical preparations, 74+ per cent. producing cigars, 74+ per cent. producing furniture, 74+ per cent. producing leather, 71+ per cent. producing manufactured tobacco, and 79+ per cent. engaged in the manufacture of wooden utensils. Of the 1,629 establishments under consideration, over 52 per cent. pay an average daily wage of less than \$2.50. These percentages, it is to be noted, relate only to skilled workers.

PERCENTAGE OF ESTABLISHMENTS, BY INDUSTRIES, PAYING SKILLED MECHANICS CERTAIN WAGES.

Industries.	Total establishments.	Per cent. of establishments of each industry paying to skilled mechanics an average daily wage—	
		Less than \$2.50.	\$2.50 and over.
Agricultural implements	74	78+	21+
Boots and shoes	30	73+	26+
Boxes	31	58+	41+
Brick	50	54	46
Brooms and brushes.....	8	87+	12+
Buildings	107	52+	47+
Carriages and wagons.....	83	63+	36+
Chemical preparations.....	10	70	30
Cigars	39	74+	25+
Clocks and watches	5	-----	100
Clothing	115	51+	48+
Cooking and heating apparatus	20	15	85
Cured and packed meats	54	37+	62+
Drugs and medicines	9	33+	66+
Flour and meal.....	97	21+	78+
Food preparations.....	56	53+	46+
Furniture	118	74+	25+
Leather	39	74+	25+
Lumber	45	57+	42+
Machines and machinery	87	41+	58+
Malt	7	57+	42+
Metals and metallic goods	197	48+	51+
Musical instruments and materials	10	50	50
Paints and oils	16	56+	43+
Paper	13	100	-----
Photographs and other likenesses.....	9	11+	88+
Printing and publishing.....	123	28+	71+
Railroad and other cars and materials	14	57+	42+
Soaps.....	10	30	70
Stone	31	29+	70+
Tobacco	7	71+	28+
Vessels, sails, etc.	11	-----	100
Wooden goods	104	79+	20
Woolen goods	-----	-----	-----
Total	1,629	52+	47+

NOTE.—Establishments, the average daily wages of whose employes were not reported, are omitted from this table; these embraced 37 as to skilled mechanics, and 153 as to ordinary laborers.

Returning to a further consideration of the Time devoted to labor, as correlating the Wages of labor, we now present two tables exhibiting in condensed form the daily hours of labor, and the months of working time in the year, by industries, for all the 1,666 establishments.

It is seen, by an examination of the table referring to the hours of daily labor, that 1057 establishments or 63+ per cent. run 10 hours for a day's work; that 216 or 13 per cent. run 9½ hours; and 189 or 11+ per cent. run 9 hours; that 33 establishments, or about 2 per cent. of the whole, make 8 hours a day's work. The number which run 12 hours is 102 or 6+ per cent. Fifty-five of these are engaged in the manufacture of flour and meal, being over one-half of all the mills exhibited. These are doubtless mills which run day and night, and divide the 24 hours equally between two sets of men. It will be noticed that the hours are long in the manufacture of paper, 15 out of the 22 establishments running 12 hours a day. The shortest hours of labor appear to be in the manufacture of brick, production of stone, and in printing and publishing.

CLASSIFIED HOURS OF LABOR, BY INDUSTRIES.

Industries.	NUMBER OF ESTABLISHMENTS HAVING AVERAGE DAILY RUNNING TIME EQUAL TO -											Totals.....
	8 Hours.....	8½ Hours..	9 Hours....	9½ Hours..	9¾ Hours..	10 Hours..	10½ Hours	11 Hours	11½ H. Hrs	12 Hours	Not Given.	
Agricultural implements.....		1	5		13		53	2				74
Boots and shoes.....			5				27					32
Boxes.....			6		9		23					38
Brick.....	9		16		6		19	1				51
Brooms and brushes.....					2		5					7
Building.....			14		32		61					107
Carriages and wagons.....		1	13		19		49	1				83
Chemical preparations.....					2		7	1		1		11
Cigars.....			5		3		28			1		39
Clocks and watches.....							5					5
Clothing.....	2		30		8		74	1	4		1	120
Cooking and heating apparatus.....			2		2		16					20
Cured and packed meats.....							49	3	1	2		54
Drugs and medicines.....					1		7			1		9
Flour and meal.....			1		4		35	6	1	55		97
Food preparations.....	1				4		43	1		6		56
Furniture.....			2		23		67					118
Leather.....			2		7		30					39
Lumber.....			5		11		19	6	4	1		46
Machines and machinery.....			5		9		71	1		3		87
Malt.....							5			4		9
Metals and metallic goods.....	2	1	15	1	27	1	132	4		2	11	197
Musical instruments and materials.....			2				8					10
Paints and oils.....			2		1		10	2		1		16
Paper.....							5	1		15		22
Photographs and other likenesses.....	3		2		1		3					9
Printing and publishing.....	6	1	11		4		100			1		123
Railroad and other cars and materials.....			2		2		10					14
Soaps.....							10					10
Stone.....	8		7		6		10					31
Tobacco.....					2		5					7
Vessels, sails, etc.....			1		1		9					11
Wooden goods.....			17		22		62	3		1		105
Woolen goods.....											16	16
Totals.....	33	4	111	1	216	1	1,057	10	32	2	2	1,668

In the succeeding table may be seen, by industries, the aggregate of months worked by the employes on full time, three-fourths time, two-thirds time, and one-half time; also the months idle, and the possible working time, supposing each establishment had run the full 12 months.

Here we see that the possible working time of the 1,650 establishments considered is 19,800 months, and that the actual working time was 17,686½ months, or 89.33 per cent., on three-fourths time, 65 months or ⅓% of 1 per cent. on two-thirds time, 346 months or 1.75 per cent. on one-half time,—making 18,716½ months worked, or 94.53 per cent of the possible working time, and leaving 1,033½ months, or 5.47 per cent of idleness. The average duration of work is 11.34 months, and of idleness ⅙% of a month.

MONTHS OF WORKING TIME AND IDLENESS.

Industries.	Average number of employes....	Number of establishments..	Possible working time, in months.....	Full time, in months.....	¾ time, in months	⅔ time, in months	½ time, in months	Entire working time, in months	Time idle, in months.....
Agricultural implements.....	6,802	74	888	723	55	....	33	811	77
Boots and shoes.....	2,064	30	360	340	5	....	2	347	13
Boxes.....	2,007	32	384	354	6	2	....	362	22
Brick.....	1,874	51	612	345	15	....	17	377	235
Brooms and brushes.....	308	8	96	87	3	....	3	93	3
Building.....	3,704	107	1,284	1,102	56	....	18	1,176	108
Carriages and wagons.....	2,497	83	996	910	64	14	7	995	1
Chemical preparations.....	784	11	132	126	....	....	....	126	6
Cigars.....	1,252	39	468	468	....	....	....	468	....
Clocks and watches.....	1,659	5	60	58	....	....	2	60	....
Clothing.....	12,569	120	1,440	1,295	46	10	44	1,395	45
Cooking and heating apparatus.....	1,119	20	240	221	4	....	....	225	15
Cured and packed meats.....	10,212	54	648	478	10	....	30	518	130
Drugs and medicines.....	191	9	108	104	2	....	2	108	....
Flour and meal.....	1,838	97	1,164	970	22	....	89	1,081	83
Food preparations.....	2,647	56	672	629	9	2	2	642	30
Furniture.....	5,951	118	1,416	1,285	78	13	11	1,387	29
Leather.....	1,839	39	468	456	12	....	....	468	....
Lumber.....	1,769	46	552	411	50	1	28	490	62
Machines and machinery.....	3,756	87	1,044	1,011	18	....	4	1,033	11
Malt.....	199	9	108	87	....	....	2	89	19
Metals and metallic goods.....	14,949	197	2,364	2,186½	74	12	14	2,286½	77½
Musical instruments and materials...	329	10	120	117	....	....	2	119	1
Paints and oils.....	389	16	192	188	....	....	....	188	4
Paper.....	750	22	264	234	3	....	12	249	15
Photographs and other likenesses.....	99	9	108	108	....	....	....	108	....
Printing and publishing.....	4,660	123	1,476	1,454	1	....	....	1,455	21
Railroad and other cars and materials	1,578	14	168	162	2	....	....	164	4
Soaps.....	456	10	120	120	....	....	....	120	....
Stone.....	1,034	31	372	316	23	1	5	345	27
Tobacco.....	1,041	7	84	67	12	....	....	79	5
Vessels, sails, etc.....	401	11	132	121	....	....	....	121	11
Wooden goods.....	4,374	105	1,260	1,153	49	10	19	1,231	29
Totals.....	95,101	1,650	19,800	17,686½	619	65	346	18,716½	1,083½
Percentages.....	....	....	100.00	89.33	3.13	.33	1.75	94.53	5.47
Averages.....	....	....	12.00	10.72	.37	.04	.21	11.34	.66

NOTE.—Woolen goods are omitted from this table, as the necessary data were not reported.

In the next table are shown the total wages paid in each industry, the average working time in months and days, the average daily earnings, and the average yearly earnings.

The months of average working time are derived from the preceding table, the three-fourths, two-thirds and one-half time being reduced to equivalents in full time, and added to the full time in the preceding column. We thus have the whole number of months worked on a basis of full time, which, being divided by the number of establishments, gives us for each industry the average number of months worked. From this is deduced the average working time in days, 52 Sundays and six holidays being thrown out, leaving the working year 307 days. The average yearly earnings are now derived by dividing the wages paid in each industry by the average number of employes; and, in turn, from the yearly earnings are derived the average daily earnings of each employé for the days of working time.

We see by this table that the average period of work for all the industries under consideration was 11.13 months, or 234.74 days, and that the average yearly earnings of each employé was \$430, and the average daily earnings \$1.51. It is to be remembered, however, that these employes consist of men, women and children. By reference to a table further on, entitled Classification of Employes by Industries, it will be found that 78,430, or 81.77 per cent., are men; 11,660, or 12.16 per cent., are women; and 5,822, or 6.07 per cent., are children and youth.

There appear to be 8 industries in which the yearly earnings exceed \$500, and two in which they exceed \$600, namely: the manufacture of cooking and heating apparatus, \$520; flour and meal, \$531; machines and machinery, \$513; musical instruments and materials, \$603; paints and oils, \$535; photographs and other likenesses, \$632; printing and publishing, \$538; and vessels, sails, etc., \$526. In 12 industries the average yearly earnings are less than \$400, namely: boots and shoes, \$374; boxes, \$380; brick, \$321; brooms and brushes, \$332; chemical preparations, \$364; clothing, \$364; cured and packed meats, \$386; food preparations, \$387; lumber, \$317; paper, \$385; soaps, \$390; and tobacco, \$339.

WORKING TIME AND EARNINGS.

Industries.	Average number of employees..	Wages.	AV'GE WORK- ING TIME.		Ave. daily earnings of each em- ploye.....	Ave. yearly earnings of each em- ploye.....
			Mont's	Days.		
Agricultural implements	6,802	\$3,060,618	10.55	269.90	\$1 67	\$450
Boots and shoes	2,064	771,737	11.49	293.95	1 27	374
Boxes	2,077	762,442	11.24	287.56	1 32	380
Brick	1,874	620,123	7.15	182.92	1 81	331
Brooms and brushes.....	308	102,406	11.34	290.12	1 14	333
Buildings	3,704	1,799,715	10.78	275.79	1 76	486
Carriages and wagons.....	2,497	1,143,099	11.70	299.83	1 53	458
Chemical preparations	784	285,370	11.45	292.93	1 24	364
Cigars	1,252	509,048	12.00	307.00	1 33	407
Clocks and watches	1,659	808,974	11.80	301.88	1 62	488
Clothing.....	12,569	4,578,139	11.32	289.60	1 26	364
Cooking and heating apparatus	1,119	592,532	11.20	286.53	1 85	530
Cured and packed meats	10,212	3,939,411	9.27	237.16	1 63	396
Drugs and medicines	191	82,754	11.83	302.65	1 43	433
Flour and meal.....	1,838	975,151	10.63	271.95	1 95	531
Food preparations.....	2,647	1,025,560	11.39	291.39	1 33	387
Furniture	5,951	2,652,286	11.51	294.46	1 51	446
Leather	1,839	868,615	11.92	304.95	1 55	472
Lumber	1,769	560,343	10.07	257.62	1 23	317
Machines and machinery	3,756	1,927,512	11.80	301.88	1 70	513
Malt	199	93,849	9.78	250.21	1 89	472
Metals and metallic goods.....	14,949	6,804,591	11.46	293.19	1 55	455
Musical instruments and materials	329	198,527	11.80	301.88	2 00	603
Paints and oils	389	207,995	11.75	300.60	1 78	535
Paper	750	288,424	11.01	281.67	1 37	385
Photographs and other likenesses.....	99	62,544	12.00	307.00	2 06	632
Printing and publishing.....	4,660	2,508,523	11.83	302.65	1 78	538
Railroad and other cars and materials ...	1,578	729,698	11.68	298.81	1 55	462
Soaps	456	177,902	12.00	307.00	1 27	390
Stone	1,034	481,152	10.85	277.58	1 68	465
Tobacco	1,041	353,200	10.86	277.84	1 22	339
Vessels, sails, etc.	401	210,835	11.00	281.42	1 87	526
Wooden goods	4,374	1,754,291	11.48	293.70	1 37	401
Totals.....	95,101	\$40,937,366	11.13	284.74	\$1 51	\$130

NOTE.—Woolen goods (16 establishments) are omitted from this table, as the entire data necessary were not reported.

CHAPTER II.

PROFITS AND EARNINGS.

We now enter upon the consideration of the subject of Profits and Earnings in Manufactures, as supplementary to that of Time and Wages of Employèes, treated in the preceding chapter. The following tables are deduced from the same schedules made use of in arriving at the hours of labor and earnings of employèes, and complete the statistical record of the 1,666 establishments.

The information in regard to each of these which is presented in the succeeding table, embraces the following details: the average number of employèes, capital invested, wages paid during the year, value of stock used, value of product, gross profit or loss, percentage of gross profit or loss of the value of product, estimated interest and expenses, net profit or loss, percentage of stock used of value of product, percentage of wages paid of value of product, percentage of interest and expenses of value of product, percentage of net profit or loss of value of product, average yearly product per employè, average yearly net profit or loss per employè, and the average yearly earnings per employè.

The number of employèes, the capital, the wages, the value of stock and value of product, are taken from the schedules and are given as reported. The remaining columns are derived by careful computations from these. The establishments are arranged in the same order under each industry as in the table of Time and Wages, and the marginal numbers link the two tables together and furnish a ready means of reference from one to the other.

A close scrutiny of the figures in the first five columns may lead one to think that here and there are evidences of incongruity in their relations, but in nearly every such case the original schedules were accompanied by explanations which accounted satisfactorily for seeming discrepancies. With such lengthy footnotes however it has not been thought worth while to burden these tables.

There are however a few instances, perhaps three or four, in which the returns appear to be defective, and no adequate explanations are offered, as for instance, the case of a clothing establishment in which only the cutters are reported as employès, the making up of the goods being let out to another establishment. Here it will be seen that the average yearly earnings of employès is very large as compared with that of other similar establishments, and as the value of the manufactured goods is reported as the firm's product, the average yearly product per employè is extraordinarily large.

In regard to only one of the columns in the succeeding table is any special explanation necessary,—that is the column headed, Estimated Interest and Expenses. This column is introduced as an essential factor in the equation, though the figures composing it can only be arrived at by assuming some arbitrary basis upon which to make the computations in each case. In this respect we have adopted the basis made use of by the Massachusetts Bureau in a similar table, and compute, as a legitimate charge upon the business, interest on the capital invested at the rate of six per cent., and to cover the miscellaneous expenses of conducting the business, such as rents, insurance, transportation and all outlays besides those for stock and wages, ten per cent. of the reported value of product.

These two items therefore compose this important column, which in the only one into which anything of a purely conjectural nature enters. All the others are either the actual facts as reported, or absolutely legitimate deductions from them. At the present stage of statistical inquiry actual facts on the subject of miscellaneous expenses could hardly be obtained in sufficient number for tabular purposes, and the only alternative offered is to make estimates based upon the best information to be had. It is possible that a higher rate of interest upon capital invested, than the six per cent. adopted for the Massachusetts manufacturers, would have been more nearly correct for Illinois, but had any other rate been adopted the uniformity necessary to a ready comparison of conditions in the two States would have been marred, without corresponding advantage. It will not be difficult for any one disposed to make a close study of the tables, to determine in how many instances and to what extent their complexion would be changed by the use of an eight per cent. rate.

The two columns about which will doubtless center the most general interest are those showing the net earnings of each employé, and the net gain or loss which each establishment realized upon the labor which those earnings paid for. These columns alone afford a most instructive study, and deserve the careful scrutiny of those who wish to arrive at just conclusions as to the relative rewards of labor and capital.

Succeeding the detailed tabulation of individual establishments in each industry, are two condensed tables, one showing the aggregated results for the State at large in each industry, and the other the summaries for all industries in each of the counties. These afford instructive views both of the distribution of manufacturing enterprises in the State, and of the degrees of prosperity which, as deduced by this analysis, have characterized different localities, and the manufactures of different kinds.

In the profit and loss columns the minus sign indicates loss, and the absence of it profit.

AGRICULTURAL IMPLEMENTS.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed	Wages paid during the year	Stock used	Value of pro- duct	Gross profit or loss	Percentage of gross profit of value of pro- duct	Estimated in- terest and ex- penses.....
1	15	\$15,000	\$9,000	\$7,000	\$20,000	\$4,000	20.00	\$2,900
2	70	100,000	29,826	23,519	75,000	21,655	28.87	18,500
3	30	40,000	10,000	32,000	65,000	23,000	35.38	2,900
4	60	368,000	20,000	27,000	60,000	13,000	21.67	28,080
5	600	2,500,000	333,832	1,093,092	1,820,360	393,436	21.61	332,036
6	410	600,000	224,000	548,000	875,000	103,000	11.77	123,500
7	120	75,000	40,000	180,000	250,000	30,000	12.00	20,500
8	140	200,000	52,000	100,000	200,000	48,000	24.00	32,000
9	147	250,000	85,000	185,000	310,000	40,000	12.90	46,000
10	41	100,000	26,000	58,000	92,000	8,000	8.70	15,200
11	160	250,000	48,000	165,000	300,000	87,000	29.00	45,000
12	16	25,000	7,000	10,000	24,875	7,875	31.66	3,988
13	40	38,900	12,000	30,921	48,135	5,214	10.83	7,148
14	23	20,000	9,500	16,000	60,000	31,500	52.50	7,200
15	13	17,000	7,500	8,000	33,000	17,500	53.03	4,320
16	23	25,000	12,000	13,500	27,000	1,500	5.56	4,200
17	20	10,000	6,460	17,172	25,675	2,043	7.96	3,168
18	440	100,000	180,000	240,000	500,000	80,000	16.00	56,000
19	165	300,000	61,000	81,000	250,000	108,000	43.20	43,000
20	20	40,000	10,000	25,245	47,609	12,364	25.97	7,161
21	25	10,000	13,500	8,750	25,000	2,750	11.00	3,100
22	35	50,000	20,000	60,000	100,000	20,000	20.00	18,000
23	60	175,000	25,000	30,000	80,000	25,000	31.25	18,500
24	90	65,000	30,000	60,200	125,000	34,800	27.84	16,400
25	102	200,000	44,000	40,000	300,000	216,000	72.00	42,000
26	15	18,000	5,400	6,500	13,000	1,100	8.46	2,380
27	40	50,000	25,000	35,000	75,000	15,000	20.00	10,500
28	95	155,000	61,500	127,437	276,301	87,364	31.62	36,930
29	58	100,000	20,000	43,000	124,180	61,180	49.27	18,418
30	38	65,000	23,000	70,000	158,000	65,000	41.14	19,700
31	35	50,000	15,000	34,500	110,000	60,500	55.00	14,000
32	21	20,000	7,200	8,800	23,065	7,065	30.63	3,507
33	76	150,000	37,995	102,017	207,971	67,929	32.66	29,797
34	30	50,000	8,350	17,000	75,000	49,650	66.20	10,500
35	69	60,000	25,000	32,000	60,000	3,000	5.00	9,600
36	15	25,000	5,000	5,500	20,000	9,500	47.50	3,500
37	13	12,000	5,000	6,200	15,000	3,800	25.33	2,220
38	100	70,000	30,000	60,000	105,000	15,000	14.29	14,700
39	40	80,000	12,500	78,000	176,000	85,500	38.58	22,400
40	50	50,000	20,000	55,000	90,000	15,000	16.67	12,000
41	10	10,000	5,000	9,000	17,000	3,000	17.65	2,300
42	45	40,000	20,000	15,000	50,000	15,000	30.00	7,400
43	500	500,000	240,488	466,200	1,010,944	344,256	30.10	131,094
44	90	45,000	32,000	57,418	140,000	59,582	36.13	16,700
45	300	400,000	224,527	398,451	901,921	281,916	31.16	114,492
46	400	250,000	131,000	575,000	750,000	41,000	5.47	90,000
47	150	310,000	75,000	66,000	159,000	18,000	11.32	33,900
48	40	50,000	9,500	18,300	32,000	4,200	13.13	6,200
49	31	35,300	9,500	19,500	44,000	15,000	34.09	6,518
50	39	20,000	8,000	16,500	40,000	15,500	38.75	5,200
51	18	20,000	8,865	12,875	26,440	4,700	17.78	3,844
52	60	100,000	25,000	29,550	75,000	20,450	27.27	13,500
53	25	10,000	9,000	2,500	21,000	9,500	45.24	2,700
54	17	25,000	6,240	12,960	24,000	4,800	20.00	3,900
55	25	15,000	5,200	13,800	25,525	6,525	25.56	3,453
56	40	48,000	18,000	20,000	52,000	14,000	26.92	8,080
57	50	60,000	20,000	45,000	75,000	10,000	13.33	11,100
58	25	50,000	9,000	20,000	50,000	21,000	42.00	8,000
59	45	80,000	13,000	47,000	75,000	15,000	20.00	12,300
60	100	125,000	35,000	100,000	160,000	25,000	15.63	23,500
61	400	400,000	150,000	180,000	360,000	30,000	8.33	60,000
62	60	100,000	21,430	68,570	120,500	30,500	25.31	18,050
63	160	300,000	75,000	90,000	250,000	85,000	34.00	43,000
64	35	50,000	16,000	21,500	60,000	22,500	37.50	9,000
65	19	30,000	10,000	17,000	35,000	8,000	22.86	5,300
66	26	60,000	15,000	15,000	55,000	25,000	45.45	9,100

AGRICULTURAL IMPLEMENTS.

Net profit or loss	Percentage of stock used of value of product	Percentage of wages paid of value of product	Percentage of interest and expenses of value of product	Percentage of net profit or loss of value of product...	Average yearly product per employe	Average yearly net profit or loss per employe	Average yearly earnings of each employe	Number of establishments..
\$1,100	35.00	45.00	14.50	5.50	\$1,333	\$73	\$600	1
8,155	31.36	39.77	18.00	10.87	1,071	117	426	2
14,100	49.2	15.38	13.69	21.69	2,167	470	333	3
-15,000	45.00	33.33	46.80	-25.13	1,000	-251	333	4
61,400	60.05	18.34	18.24	3.37	3,034	102	556	5
-20,500	62.63	25.60	14.11	-2.34	2,134	-50	516	6
500	72.00	16.00	11.80	.20	2,083	4	333	7
16,000	50.00	26.00	16.00	8.00	1,429	114	371	8
-6,000	59.68	27.42	14.84	-1.94	2,109	-41	578	9
-7,200	63.04	28.26	16.52	-7.83	2,214	-176	634	10
42,000	55.00	16.00	15.00	14.00	1,875	263	300	11
3,877	40.20	28.14	16.03	15.63	1,555	243	438	12
-1,934	61.24	24.93	14.85	-4.02	1,203	-48	300	13
27,300	26.67	15.83	12.00	45.50	2,609	1,187	413	14
13,180	24.21	22.73	13.09	39.94	2,538	1,014	577	15
-2,700	50.00	44.44	15.56	-10.00	1,174	-117	522	16
-1,125	66.88	25.16	12.34	-4.38	1,284	-56	323	17
21,000	48.00	36.00	11.24	4.80	1,136	55	409	18
65,000	32.40	24.40	17.20	26.00	1,515	394	370	19
5,203	53.03	21.00	15.04	10.93	2,380	260	500	20
-350	35.00	54.00	12.40	-1.40	1,000	-14	540	21
7,000	60.00	20.00	13.00	7.00	2,857	200	571	22
6,500	37.50	31.25	23.13	8.13	1,333	103	417	23
18,400	48.16	24.00	13.12	14.72	1,389	204	333	24
174,000	13.33	14.67	14.00	58.00	2,911	1,706	431	25
-1,280	50.00	41.54	18.31	-9.85	867	-85	360	26
4,500	46.67	33.33	14.00	6.00	1,875	113	625	27
50,434	46.12	22.26	13.37	18.25	2,908	531	647	28
42,762	34.63	16.11	14.83	34.44	2,141	737	345	29
45,300	44.30	14.56	12.47	28.67	4,158	1,192	605	30
46,500	31.36	13.64	12.73	42.27	3,143	1,320	429	31
3,558	38.15	31.22	15.20	15.43	1,098	169	343	32
38,132	49.07	18.27	14.33	18.31	2,734	502	500	33
39,150	22.67	11.13	14.00	52.20	2,500	1,305	278	34
-6,000	53.33	41.67	16.00	-11.00	870	-96	362	35
6,000	27.50	25.00	17.50	30.00	1,333	400	333	36
1,580	41.33	33.33	14.80	10.53	1,154	122	385	37
300	57.14	28.57	14.00	.20	1,050	3	300	38
63,100	44.32	7.10	12.73	35.85	4,400	1,578	313	39
3,000	61.11	22.22	13.33	3.33	1,800	60	400	40
700	52.94	29.41	13.53	4.12	1,700	70	500	41
7,600	30.00	40.06	14.80	15.20	1,111	169	444	42
173,162	46.12	23.79	12.97	17.13	2,022	346	481	43
33,882	41.01	22.86	11.93	24.20	1,556	376	356	44
167,454	44.03	24.81	12.65	18.50	3,016	558	748	45
-49,000	76.67	17.87	12.00	-6.53	1,875	-123	335	46
-15,900	41.51	47.17	21.32	-10.00	1,060	-106	500	47
-2,000	57.19	29.69	19.38	-6.25	800	-50	238	48
8,482	44.32	21.59	14.81	19.28	1,419	274	306	49
10,300	41.25	20.00	13.00	25.75	1,333	343	267	50
856	48.70	33.53	14.54	3.24	1,469	48	492	51
6,950	39.40	33.33	18.00	9.27	1,250	116	417	52
6,800	11.90	42.86	12.86	32.38	810	272	360	53
900	54.00	26.00	16.25	3.75	1,412	53	367	54
3,072	54.06	20.37	13.53	12.04	1,021	123	208	55
5,920	38.46	31.62	15.54	11.38	1,300	148	450	56
-1,100	60.00	26.67	14.80	-1.47	1,500	22	400	57
13,000	40.00	18.00	16.00	26.00	2,000	520	360	58
2,700	62.67	17.33	16.40	3.60	1,667	60	289	59
1,500	62.50	21.88	14.69	.94	1,600	15	350	60
-30,000	50.00	41.67	16.67	-8.33	900	-75	375	61
12,450	56.90	17.78	14.98	10.33	2,008	208	357	62
42,000	36.00	30.00	17.20	16.80	1,563	263	460	63
13,500	35.83	26.67	15.00	22.50	1,714	386	457	64
2,700	48.57	28.57	15.14	7.71	1,842	142	526	65
15,900	27.27	27.27	16.55	28.91	2,115	612	577	66

Agricultural Implements—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
67	225	\$350,000	\$100,000	\$125,000	\$300,000	\$75,000	25.00	\$51,000
68	126	200,000	60,152	100,000	315,152	155,000	49.18	43,515
69	50	200,000	18,467	39,100	130,500	72,933	55.89	25,050
70	30	150,000	7,636	22,850	55,500	24,964	44.98	6,450
71	40	75,000	20,000	23,500	48,000	4,500	9.38	9,300
72	50	80,000	32,000	52,000	125,317	41,317	32.97	17,332
73	10	10,000	5,000	12,000	20,000	3,000	15.00	2,600
74	10	20,000	6,000	10,000	30,000	14,000	46.67	4,200

BOOTS AND SHOES.

1	18	\$4,000	\$6,476	\$7,000	\$14,884	\$1,408	9.46	\$1,728
2	25	6,000	14,000	10,000	30,000	6,000	20.00	3,360
3	120	12,500	25,000	25,000	60,000	10,000	16.67	6,750
4	15	3,500	5,000	10,000	18,000	3,000	16.67	2,010
5	53	250,000	31,688	68,554	104,367	4,125	3.95	25,437
6	90	150,000	50,000	87,500	146,250	8,750	5.98	23,625
7	160	125,000	66,000	160,000	277,072	51,072	18.43	35,207
8	250	100,000	130,000	320,000	500,000	50,000	10.00	56,000
9	75	50,000	25,000	47,000	76,800	4,800	6.25	10,680
10	80	35,000	25,000	40,000	75,000	10,000	13.33	9,600
11	36	10,000	14,000	30,000	60,000	16,000	26.67	6,600
12	40	8,000	17,200	26,500	51,000	7,300	14.31	5,580
13	24	5,000	12,822	19,375	38,250	6,053	15.82	4,125
14	22	5,000	10,000	12,000	25,000	3,000	12.00	2,800
15	23	5,000	12,000	11,000	30,000	7,000	23.33	3,300
16	26	3,500	13,000	21,000	38,000	4,000	10.53	4,010
17	45	40,000	21,000	45,000	80,000	14,000	17.50	10,400
18	100	25,000	42,000	65,000	125,000	18,000	14.40	14,000
19	40	20,000	20,000	30,000	60,000	10,000	16.67	7,200
20	53	15,000	22,000	30,000	60,000	8,000	13.33	6,900
21	50	12,000	20,000	60,750	90,000	9,250	10.28	9,720
22	12	10,000	7,000	9,100	20,350	4,250	20.88	2,635
23	33	3,000	15,600	15,000	33,000	2,400	7.27	3,480
24	15	2,500	8,700	12,500	25,000	3,800	15.20	2,650
25	10	2,000	5,500	8,900	18,000	3,600	20.00	1,920
26	23	5,000	8,000	15,000	27,000	4,000	14.81	3,000
27	35	3,000	12,000	15,000	32,000	5,000	15.63	3,380
28	14	2,500	7,000	10,000	24,000	7,000	29.17	2,550
29	58	10,000	24,000	45,000	75,000	6,000	8.00	8,100
30	514	800,000	101,751	500,000	905,000	303,249	33.51	138,500

BOXES.

1	20	\$10,000	\$6,000	\$6,250	\$12,000	—\$250	—2.08	\$1,800
2	31	15,000	12,000	15,000	48,000	21,000	43.75	5,700
3	80	22,000	42,000	36,000	84,000	6,000	7.14	9,720
4	70	20,000	24,710	39,382	73,173	9,081	12.41	8,517
5	70	16,000	32,000	30,000	70,000	8,000	11.43	7,960
6	115	150,000	66,000	110,800	195,000	18,200	9.33	28,500
7	53	35,000	32,243	104,000	147,400	11,157	7.57	16,840
8	75	20,000	30,000	75,000	115,000	10,000	8.61	12,700
9	125	30,000	45,000	75,000	131,000	11,000	8.40	14,900
10	92	40,000	30,687	74,000	150,000	45,313	30.21	17,400

Agricultural Implements—Continued.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product...	Average yearly product per employe.....	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe	Number of establishments..
\$24,030	41.67	33.33	17.00	8.00	\$1,333	\$107	\$444	67
111,435	31.73	19.09	13.81	35.37	2,501	825	478	68
47,833	29.96	14.15	19.20	36.69	2,610	958	369	69
13,514	41.17	13.85	11.62	33.36	1,850	617	255	70
—4,800	48.96	41.67	19.33	—10.00	1,200	—120	500	71
23,985	41.49	25.54	13.83	19.14	2,506	480	640	72
400	60.00	25.00	13.00	2.00	2,000	40	500	73
9,800	33.33	20.00	14.00	32.67	3,000	930	600	74

BOOTS AND SHOES.

—\$320	47.03	43.51	11.61	—2.15	\$827	—\$18	\$360	1
2,610	33.33	46.67	11.20	8.80	1,200	106	560	2
3,250	41.67	41.67	11.25	5.42	500	27	208	3
990	55.56	27.78	11.17	5.50	1,200	66	333	4
—21,312	65.69	30.36	24.37	—20.42	1,969	—402	598	5
—14,875	59.83	34.19	16.15	—10.17	1,625	—165	556	6
15,865	57.75	23.82	12.71	5.73	1,732	99	413	7
—6,000	64.00	26.00	11.20	—1.20	2,000	—24	520	8
—5,880	61.20	32.55	13.91	—7.66	1,024	—78	333	9
400	53.33	33.33	12.80	.53	938	5	313	10
9,400	50.00	23.33	11.00	15.67	1,667	261	389	11
1,720	51.96	33.73	10.94	3.37	1,275	43	430	12
1,928	50.65	33.52	10.78	5.04	1,594	80	534	13
200	48.00	40.00	11.20	.80	1,136	9	455	14
3,700	36.67	40.00	11.00	12.33	1,071	132	429	15
—10	55.26	31.21	10.55	—1.03	1,462	a —	500	16
3,600	56.25	26.25	13.00	4.50	1,778	80	467	17
4,000	52.00	33.60	11.20	3.20	1,250	40	420	18
2,800	50.00	33.33	12.00	4.67	1,500	70	500	19
1,100	50.00	36.67	11.50	1.83	1,132	21	415	20
—470	67.50	22.22	10.80	—52	1,800	—9	400	21
1,615	44.71	34.40	12.95	7.94	1,696	135	583	22
—1,080	45.45	47.27	10.55	—3.27	1,000	—33	473	23
1,150	50.00	34.80	10.60	4.60	1,667	77	580	24
1,650	49.44	30.56	10.67	9.33	1,800	168	550	25
1,000	55.56	29.63	11.11	3.70	1,174	43	348	26
1,620	46.88	37.50	10.56	5.06	914	46	343	27
4,450	41.67	29.17	10.63	18.54	1,714	318	500	28
—2,100	60.00	32.00	10.80	—2.80	1,293	—36	414	29
164,749	55.25	11.24	15.30	18.20	1,761	321	198	30

BOXES.

—\$2,050	52.08	50.00	15.00	—17.08	\$600	—\$103	\$300	1
15,300	31.25	25.00	11.88	31.88	1,518	494	387	2
—3,720	42.86	50.00	11.57	—4.43	1,050	—47	525	3
564	53.82	33.77	11.64	.77	1,045	8	353	4
40	42.86	45.71	11.37	.06	1,000	1	457	5
—10,300	56.82	33.85	14.62	—5.23	1,696	—90	574	6
—5,683	70.56	21.87	11.42	—3.86	2,781	—107	608	7
—2,700	65.22	26.09	11.04	—2.35	1,533	—36	400	8
—3,900	57.25	34.35	11.37	—2.98	1,048	—31	360	9
27,913	49.34	20.46	11.60	18.61	1,630	303	334	10

STATISTICS OF LABOR.

Boxes—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed	Wages paid during the year	Stock used	Value of pro- duct	Gross profit or loss	Percentage of gross profit of value of pro- duct	Estimated in- terest and ex- penses.....
11	90	\$40,000	\$22,500	\$90,000	\$125,000	\$12,500	10.00	\$14,900
12	65	100,000	20,000	100,000	130,000	10,000	7.69	19,000
13	35	30,000	12,000	150,000	175,000	13,000	7.43	19,300
14	100	45,000	50,000	600,000	660,000	10,000	1.52	68,700
15	70	80,726	31,000	520,000	610,000	59,000	9.67	65,844
16	80	22,000	42,000	360,000	441,000	42,000	9.46	45,720
17	40	17,000	7,500	56,500	75,500	11,500	15.23	8,570
18	70	30,000	29,000	60,000	100,000	11,000	11.00	11,800
19	65	10,000	8,000	20,000	45,000	17,000	37.78	5,100
20	60	20,000	40,000	2,000	80,000	38,000	47.50	9,200
21	106	25,000	18,661	40,000	70,000	11,339	16.20	8,500
22	100	10,000	28,245	9,685	40,000	2,070	5.18	4,600
23	26	3,800	7,800	6,500	19,355	5,055	26.07	2,164
24	30	15,000	10,188	8,690	31,411	12,533	39.87	4,041
25	35	20,000	13,000	30,000	50,000	7,000	14.00	6,200
26	20	10,000	8,000	65,000	78,000	5,000	6.41	8,400
27	80	20,000	25,500	30,000	75,000	19,500	26.00	8,700
28	40	12,000	12,000	20,000	40,000	8,000	20.00	4,720
29	50	12,000	16,884	24,000	47,196	6,312	13.37	5,440
30	20	3,000	6,000	8,500	18,000	3,500	19.44	1,980
31	14	5,000	5,000	3,000	18,000	10,000	55.56	2,100
32	80	22,000	28,524	30,000	73,746	15,222	20.64	8,695

BRICK.

1	36	\$14,000	\$7,658	\$4,136	\$16,500	\$4,706	28.52	\$2,490
2	14	6,000	5,500	2,750	11,000	2,750	25.00	1,460
3	40	15,000	9,125	4,560	18,250	4,565	25.01	2,725
4	50	20,000	13,750	6,875	27,500	6,875	25.00	3,950
5	21	6,000	5,500	2,750	11,000	2,760	25.00	1,460
6	17	4,500	5,250	2,625	10,500	2,625	25.00	1,320
7	18	10,000	5,500	2,750	11,000	2,750	25.00	1,700
8	20	4,000	6,000	3,000	12,000	3,000	25.00	1,440
9	18	5,000	5,500	2,750	11,000	2,750	25.00	1,400
10	45	20,000	9,000	4,500	18,000	4,500	25.00	3,000
11	18	10,000	6,875	3,450	13,750	3,425	24.91	1,975
12	14	6,000	5,500	2,750	11,000	2,750	25.00	1,460
13	20	5,000	5,000	3,000	12,000	4,000	33.33	1,500
14	80	20,000	40,000	6,700	78,000	31,300	40.13	9,000
15	70	45,000	29,000	12,700	66,000	24,300	36.82	9,300
16	50	26,000	15,000	3,000	27,000	9,000	33.33	4,260
17	60	6,000	18,000	3,000	30,000	9,000	30.00	3,360
18	22	5,000	7,200	3,350	15,000	4,450	29.67	1,800
19	40	6,000	15,000	4,000	26,000	7,000	26.92	2,960
20	45	20,000	15,000	3,000	30,000	12,000	40.00	4,200
21	40	15,000	15,000	2,500	24,000	6,500	27.08	3,300
22	35	3,000	12,000	2,400	21,000	6,600	31.43	2,280
23	17	5,000	6,600	1,200	10,000	2,200	22.00	1,300
24	50	15,000	18,000	5,000	35,000	12,000	34.29	4,400
25	75	10,000	20,000	16,000	42,000	6,000	14.29	4,800
26	60	15,000	20,000	1,800	26,000	4,200	16.15	3,500
27	96	8,000	37,500	9,300	51,500	4,700	9.13	5,680
28	24	2,000	6,000	3,000	12,500	3,500	28.00	1,370
29	18	2,000	5,500	2,700	10,000	1,800	18.00	1,120
30	15	5,000	5,000	2,500	10,000	2,500	25.00	1,120
31	170	50,000	76,000	10,000	100,000	14,000	14.00	13,000
32	30	2,500	12,500	5,000	25,000	7,500	30.00	2,650
33	60	6,000	19,200	4,000	40,000	16,800	42.00	4,360
34	37	9,000	13,865	2,600	22,500	6,035	26.82	2,790
35	40	100,000	12,500	20,000	45,000	12,500	27.78	10,500
36	16	8,500	6,270	3,125	12,810	3,415	26.66	1,791
37	39	20,000	7,000	2,750	13,000	3,250	25.00	2,500

Boxes—Continued.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expense of value of product.....	Percentage of net profit or loss of value of product.....	Average yearly product per employe.....	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe	Number of establishments.....
2,400	72.00	18.00	11.92	-1.92	\$1,389	\$27	\$250	11
1,000	70.92	15.38	14.02	-5.92	2,000	138	300	12
6,900	85.71	5.86	11.03	-3.60	5,000	100	343	13
38,700	91.00	7.58	10.41	-8.59	6,600	587	600	14
1,844	85.25	5.08	10.70	-1.12	8,714	94	443	15
3,720	81.08	9.46	10.30	-1.84	5,550	47	525	16
2,950	74.83	9.93	11.35	-8.88	1,884	73	188	17
1,800	60.00	29.00	11.60	-1.90	2,429	11	414	18
11,900	44.44	17.78	11.93	26.44	692	184	123	19
28,800	2.50	50.00	11.50	36.00	1,333	480	607	20
2,810	57.14	26.66	12.14	4.00	660	27	176	21
2,500	24.21	70.61	11.50	-6.83	400	50	282	22
2,811	33.58	40.30	12.18	14.94	744	111	300	23
8,412	27.67	32.43	12.80	27.04	1,047	264	359	24
800	60.00	25.00	12.40	1.00	1,429	23	371	25
3,400	83.33	10.26	10.77	-4.36	3,900	150	400	26
10,800	40.00	34.00	11.00	14.40	938	135	319	27
3,200	50.00	30.00	11.60	8.20	1,000	82	300	28
872	50.85	35.77	11.53	1.95	941	17	338	29
1,520	47.22	33.33	11.00	8.41	900	73	300	30
7,900	16.67	27.78	11.67	43.89	1,286	564	357	31
6,527	40.68	38.68	11.73	8.85	922	82	357	32

BRICK.

\$1,216	25.07	46.41	15.09	13.43	\$159	\$62	\$213	1
1,200	25.00	50.00	13.27	11.73	786	92	333	2
1,840	24.90	50.00	14.93	10.08	456	46	228	3
2,925	25.00	50.00	14.36	10.64	550	59	275	4
1,200	25.00	50.00	14.27	11.73	524	61	262	5
1,305	25.00	50.00	12.57	12.43	618	77	309	6
1,050	25.00	50.00	15.45	9.55	611	58	306	7
1,500	25.00	50.00	12.00	13.00	600	78	300	8
1,350	25.00	50.00	12.73	12.27	611	75	306	9
1,500	25.00	50.00	16.67	8.33	400	33	200	10
1,450	25.09	60.00	14.36	10.55	764	81	362	11
1,200	25.00	50.00	13.27	11.73	746	92	393	12
2,500	25.00	41.67	12.50	20.83	600	125	250	13
21,300	8.59	51.28	11.54	28.59	973	279	500	14
15,000	19.24	43.94	14.09	22.73	943	214	414	15
4,740	11.11	55.56	15.78	17.56	540	95	300	16
5,610	10.00	60.00	11.20	18.80	600	94	300	17
2,650	22.33	48.00	12.00	17.67	682	120	327	18
4,040	15.38	57.69	11.36	15.54	650	101	375	19
7,800	10.00	50.00	14.00	26.00	667	173	333	20
3,200	10.42	62.50	13.75	13.33	600	80	375	21
4,320	11.43	57.14	10.50	20.57	600	123	343	22
900	12.00	66.00	13.00	9.00	588	53	388	23
7,600	14.29	51.43	12.57	21.71	700	152	300	24
1,200	38.10	47.62	11.43	2.86	500	16	267	25
700	6.92	75.92	13.46	2.69	433	12	333	26
500	18.06	72.82	10.93	-1.81	596	10	301	27
2,130	24.00	48.00	10.96	17.04	521	89	250	28
680	27.00	55.00	11.20	6.80	556	38	306	29
1,380	25.00	50.00	11.20	13.80	667	92	333	30
1,000	10.00	75.00	13.00	1.00	588	6	447	31
4,850	20.00	50.00	10.60	10.40	833	162	417	32
12,440	10.00	48.00	10.90	31.10	667	207	320	33
3,215	11.56	61.62	12.40	14.42	608	88	375	34
2,000	44.44	27.78	23.33	4.44	1,125	50	313	35
1,624	24.40	48.95	13.98	12.68	801	102	302	36
750	21.15	11.11	10.00	5.77	333	19	179	37

STATISTICS OF LABOR.

Brick—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
38	31	\$12,000	\$5,905	\$11,845	\$25,000	\$7,250	29.00	\$3,220
39	20	39,000	7,710	17,860	36,000	10,430	18.97	5,940
40	21	9,000	5,600	2,700	11,000	2,700	24.55	1,640
41	17	5,000	6,000	3,650	13,000	3,350	25.77	1,600
42	35	10,000	8,000	5,500	18,000	4,500	25.00	2,400
43	10	4,000	5,000	2,600	10,000	2,400	24.00	1,240
44	50	100,000	12,000	17,000	40,000	11,000	27.50	10,000
45	20	2,250	5,440	2,060	10,000	2,500	25.00	1,135
46	30	77,748	6,275	16,445	32,525	9,805	30.15	7,918
47	20	40,000	8,000	13,300	30,000	8,700	29.00	5,400
48	30	25,000	10,000	15,210	35,000	9,790	27.97	5,000
49	20	32,000	6,000	15,300	30,000	8,700	29.00	4,920
50	30	20,000	6,000	2,500	11,500	3,000	26.09	2,350
51	30	15,000	5,900	16,110	31,000	8,930	29.00	4,000

BROOMS AND BRUSHES.

1	65	\$18,000	\$16,650	\$35,000	\$55,000	\$3,350	6.09	\$6,580
2	90	125,000	38,000	103,500	154,000	12,500	8.12	22,900
3	30	14,000	10,000	10,750	25,000	4,250	17.00	3,340
4	8	15,000	5,200	15,000	35,000	14,800	42.29	4,400
5	16	10,000	9,500	22,200	35,000	3,300	9.43	4,100
6	40	25,000	10,556	17,472	35,000	6,972	19.92	5,000
7	39	10,000	6,500	16,000	40,000	17,500	43.75	4,600
8	20	5,000	6,000	10,000	18,000	2,000	11.11	2,100

BUILDING.

1	12	\$5,000	\$7,000	\$10,000	\$25,000	\$8,000	32.00	\$2,800
2	153	75,000	72,308	105,000	200,000	22,692	11.35	24,500
3	36	10,000	20,000	18,328	41,446	3,118	7.52	4,745
4	31	20,000	15,200	11,800	33,250	6,250	18.80	4,525
5	20	5,000	6,316	16,984	23,900	600	2.51	2,690
6	16	200	10,000	12,000	25,000	3,000	12.00	2,512
7	12	2,000	8,762	5,000	15,000	1,238	8.25	1,620
8	25	7,000	15,600	20,000	36,000	400	1.11	4,020
9	67	10,000	36,000	30,000	76,000	10,000	13.16	8,200
10	30	10,000	12,000	20,000	38,000	6,000	15.79	4,400
11	25	10,000	13,125	27,404	51,000	10,471	20.53	5,700
12	12	1,000	7,776	3,300	12,183	1,107	9.09	1,278
13	9	2,000	6,240	1,800	12,000	3,960	33.00	1,320
14	10	400	6,240	2,400	9,500	860	9.05	974
15	400	25,000	165,000	250,000	425,000	10,000	2.35	44,000
16	20	1,000	6,000	8,000	18,000	4,000	22.22	1,860
17	8	1,000	6,000	6,000	13,800	1,800	13.04	1,440
18	25	4,500	13,000	10,500	28,500	5,000	17.54	3,120
19	22	13,000	12,950	30,250	48,275	5,075	10.51	5,608
20	12	560	8,056	20,112	30,321	2,153	7.10	3,062
21	18	12,000	8,560	12,191	23,163	2,412	10.41	3,036
22	12	5,000	7,200	19,300	30,000	3,500	11.67	3,300
23	30	10,000	10,000	15,000	30,000	5,000	16.67	3,600
24	11	2,000	7,000	4,500	14,000	2,500	17.86	1,520
25	16	800	8,000	25,000	35,000	2,000	5.71	3,548
26	15	5,000	7,000	30,000	40,000	3,000	7.50	4,300
27	33	10,000	19,000	21,000	50,000	10,000	20.00	9,800
28	80	40,000	52,100	75,000	150,000	22,900	15.26	17,400
29	40	20,000	28,000	50,000	90,000	12,000	13.33	10,200
30	25	15,000	15,000	50,000	100,000	35,000	35.00	10,900

Brick—Continued.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product....	Average yearly product per employe.....	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe	Number of establishments..
\$4,030	47.38	23.62	12.88	16.12	\$806	\$130	\$100	38
4,490	49.61	21.42	16.50	12.47	1,800	225	385	39
1,060	24.55	50.91	14.91	9.64	524	50	267	40
1,750	28.08	46.15	12.31	13.46	765	103	353	41
2,100	30.56	44.44	13.33	11.67	514	60	229	42
1,160	26.00	50.00	12.40	11.60	1,000	116	500	43
1,000	42.50	30.00	25.00	2.50	800	20	240	44
1,365	20.60	54.40	11.35	13.65	500	68	272	45
1,887	50.56	19.29	24.34	5.80	1,626	94	314	46
3,300	44.33	26.67	18.00	11.00	1,500	165	400	47
4,790	43.46	28.57	14.29	13.69	1,167	160	333	48
3,780	51.00	20.00	16.40	12.60	1,500	189	300	49
650	21.74	52.17	20.43	5.65	383	22	200	50
4,990	51.97	19.03	12.90	16.10	1,033	166	197	51

BROOMS AND BRUSHES.

-\$3,230	63.64	30.27	11.96	-5.87	\$846	-\$50	\$256	1
-10,400	67.21	24.68	14.87	-6.75	1,711	116	422	2
910	43.00	40.00	13.36	3.64	833	30	333	3
10,400	42.86	14.86	12.57	29.71	4,375	1,300	650	4
-800	63.43	27.14	11.71	-2.29	2,188	-50	594	5
1,972	49.92	30.16	14.29	5.63	875	49	264	6
12,900	40.00	16.25	11.50	32.25	1,026	341	167	7
-100	55.56	31.33	11.67	-5.6	900	-5	300	8

BUILDING.

\$5,200	40.00	20.00	11.20	20.80	\$2,983	\$433	\$583	1
-1,808	52.50	36.15	12.25	-90	1,307	-12	473	2
-1,627	44.22	48.26	11.45	-3.92	1,151	-45	556	3
1,725	35.49	45.71	13.61	5.19	1,073	56	490	4
-2,090	71.06	26.43	11.26	-8.74	1,195	-104	316	5
488	48.00	40.00	10.05	1.95	1,563	31	625	6
-392	33.33	58.41	10.80	-2.55	1,250	-32	730	7
-3,620	55.56	43.33	11.17	-10.06	1,440	-145	624	8
1,800	39.47	47.37	10.79	2.37	1,134	27	537	9
1,600	52.63	31.58	11.58	4.21	1,267	53	400	10
4,771	53.73	25.74	11.18	9.35	2,040	191	525	11
-171	27.09	63.83	10.49	-1.40	1,015	-14	648	12
2,640	15.00	52.00	11.00	22.00	1,333	293	693	13
-114	25.26	65.68	10.25	-1.20	950	-11	624	14
-34,000	58.82	38.82	10.35	-8.00	1,063	-85	413	15
2,140	44.44	33.33	10.33	11.89	900	107	300	16
360	43.48	43.48	10.43	2.61	1,724	45	750	17
1,880	36.84	45.61	10.95	6.60	1,140	75	520	18
-533	62.66	26.83	11.62	-1.10	2,194	-24	589	19
-909	66.33	26.57	10.10	-3.00	2,527	-76	671	20
-624	52.63	36.96	13.11	-2.69	1,287	-35	476	21
200	64.33	24.00	11.00	.67	2,500	17	600	22
1,400	50.00	33.33	12.00	4.67	1,000	47	333	23
980	32.14	50.00	10.86	7.00	1,273	89	636	24
-1,548	71.43	22.86	10.14	-4.42	2,188	-97	500	25
-1,300	75.00	17.50	10.75	-3.25	2,667	-87	467	26
200	42.00	38.00	19.60	.40	1,515	6	576	27
5,500	50.00	34.73	11.60	3.67	1,875	69	651	28
1,800	55.56	31.11	11.33	2.00	2,250	45	700	29
24,100	50.00	15.00	10.90	24.10	4,000	964	600	30

Building—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year	Stock used	Value of pro- duct	Gross profit or loss	Percentage of gross profit of value of pro- duct	Estimated in- terest and ex- penses.....
31	35	\$10,000	\$19,000	\$12,000	\$40,000	\$0,000	22.50	\$4,600
32	22	5,000	15,000	16,000	35,000	4,000	11.43	3,800
33	12	2,000	7,500	20,000	30,000	2,500	8.33	3,120
34	75	10,000	45,000	50,000	103,000	8,000	7.77	10,900
35	18	2,000	12,000	15,000	30,000	3,000	10.00	3,120
36	16	4,000	10,000	15,000	25,000	a—	a—	2,740
37	10	5,000	5,625	43,500	55,000	5,875	10.68	5,800
38	12	1,000	6,000	15,000	23,000	2,000	8.70	2,360
39	15	1,200	3,675	51,825	69,000	7,500	10.87	6,973
40	30	6,000	10,000	20,000	40,000	10,000	25.00	4,360
41	35	5,000	25,000	30,000	60,500	5,500	9.09	6,350
42	13	7,000	8,325	29,500	43,000	5,175	12.03	4,720
43	40	6,000	19,687	35,000	60,000	5,313	8.86	6,360
44	20	5,000	8,000	20,000	35,000	7,000	20.00	3,800
45	25	5,000	12,500	55,000	75,000	7,500	10.00	7,800
46	24	4,000	11,812	30,600	45,000	2,588	5.75	4,710
47	20	3,000	10,500	17,500	30,000	2,000	6.67	3,180
48	40	3,000	16,575	23,425	40,000	a—	a—	4,180
49	30	3,000	8,750	16,450	28,000	2,800	10.00	2,980
50	14	1,500	5,950	9,500	18,000	2,550	14.17	1,890
51	25	10,000	12,500	49,000	70,000	8,500	12.14	7,600
52	60	7,000	30,900	21,000	58,000	6,100	10.52	6,220
53	35	5,000	13,500	38,500	60,000	8,000	13.33	6,300
54	15	2,000	7,200	14,500	24,000	2,300	9.58	2,520
55	30	5,000	13,500	61,000	80,000	5,500	6.88	8,300
56	30	3,500	12,800	32,500	50,000	4,700	9.40	5,210
57	20	3,000	8,600	32,400	45,000	4,000	8.89	4,620
58	75	10,000	39,200	45,400	93,000	8,400	9.03	9,900
59	20	6,000	12,150	53,000	70,000	4,850	6.93	7,360
60	25	5,000	9,600	20,500	35,000	4,900	14.00	3,800
61	24	2,500	9,600	53,000	65,500	2,900	4.43	6,700
62	30	5,000	7,950	30,000	40,000	2,050	50.13	4,300
63	30	5,000	15,000	20,000	40,000	5,000	12.50	4,300
64	20	4,000	8,800	14,650	27,950	4,500	16.10	3,035
65	12	3,000	5,400	5,600	12,000	1,000	8.33	1,380
66	40	2,000	21,750	35,250	60,000	3,000	5.00	6,120
67	22	1,500	12,850	5,700	19,500	950	4.87	2,040
68	30	5,000	16,275	47,500	70,000	6,225	8.89	7,300
69	50	5,000	29,325	134,500	175,000	11,175	6.39	17,800
70	14	4,000	7,200	21,400	30,000	1,400	4.67	3,240
71	12	2,000	7,150	12,150	21,000	1,700	8.10	2,220
72	35	8,000	14,000	18,000	34,000	2,000	5.88	3,880
73	100	10,000	49,000	70,000	130,900	11,900	9.09	13,620
74	200	10,000	100,000	242,000	360,000	18,000	5.00	36,600
75	40	8,000	25,000	25,000	55,000	5,000	9.09	5,980
76	50	2,000	19,000	32,000	60,000	9,000	15.00	6,120
77	40	5,000	10,000	40,000	56,000	6,000	10.71	5,900
78	80	30,000	45,000	85,000	145,000	15,000	1.03	16,300
79	62	48,000	31,763	83,000	124,000	9,237	7.45	15,280
80	150	100,000	80,000	140,000	250,000	30,000	12.00	31,000
81	10	2,000	6,000	6,000	14,000	2,000	14.29	1,520
82	20	2,000	6,400	6,000	20,000	7,600	38.00	2,120
83	19	6,000	7,500	50,000	70,000	12,500	17.86	7,360
84	15	2,600	6,240	2,600	9,990	1,150	11.51	1,155
85	25	8,250	5,860	8,250	16,110	2,000	12.41	2,106
86	13	9,000	5,000	9,000	15,000	1,000	6.67	2,040
87	12	2,000	7,000	11,000	18,500	500	2.70	1,970
88	30	3,000	10,000	60,000	75,000	5,000	6.67	7,680
89	30	3,500	18,000	25,000	45,000	2,000	4.45	4,710
90	22	1,000	8,000	8,000	21,000	5,000	23.81	2,160
91	64	50,000	24,000	60,000	120,000	36,000	30.00	15,000
92	16	1,300	6,000	6,000	15,000	3,000	20.00	1,578
93	10	2,000	5,000	13,800	20,000	1,200	6.00	2,120
94	15	2,500	6,000	6,000	15,000	3,000	20.00	1,650
95	25	10,000	8,170	1,000	15,000	5,830	38.87	2,100
96	10	12,000	5,460	5,000	15,000	4,540	30.27	2,220

Building—Continued.

Net profit or loss	Percentage of stock used of value of product	Percentage of wages paid of value of product	Percentage of interest and expenses of value of product	Percentage of net profit or loss of value of product	Average yearly product per employe	Average yearly net profit or loss per employe	Average yearly earnings of each employe	Number of establishments
\$4,400	30.00	47.50	11.50	11.00	\$1,143	\$126	\$543	31
200	45.71	42.86	10.86	57	1,591	9	682	32
—620	66.67	23.00	10.40	—2.07	2,590	—52	625	33
—2,900	48.54	43.69	10.58	—2.82	1,373	—39	640	34
—120	50.00	40.00	10.40	—4.0	1,667	—7	667	35
—2,740	60.00	40.00	10.96	—10.96	1,563	—171	623	36
75	79.09	10.23	10.55	.14	5,500	8	563	37
—360	65.22	26.09	10.27	—1.57	1,917	—30	504	38
528	75.11	14.02	10.10	.77	4,600	35	645	39
6,640	50.00	25.00	10.90	14.10	1,333	188	333	40
—850	49.59	41.32	10.50	—1.40	1,729	—24	714	41
453	68.60	19.36	11.00	1.06	3,308	35	640	42
—1,047	58.33	32.81	10.60	—1.75	1,500	26	492	43
3,200	57.14	22.86	10.86	9.14	1,750	160	400	44
—300	79.33	16.67	10.40	—4.0	3,000	12	500	45
—2,152	68.00	26.25	10.53	—4.78	1,875	96	492	46
—1,180	58.33	35.00	10.60	—3.93	1,500	20	525	47
—1,180	58.56	41.44	10.45	—10.45	1,000	—105	414	48
—180	58.75	31.25	10.64	—64	933	6	292	49
660	52.78	33.06	10.50	3.67	1,286	47	425	50
900	70.00	17.86	10.86	1.29	2,800	30	500	51
—120	36.21	53.28	10.72	—21	967	—	515	52
1,700	64.17	22.50	10.50	2.83	1,714	49	386	53
—220	60.41	30.00	10.50	—92	1,600	—154	480	54
—2,800	76.25	16.88	10.38	—3.50	2,607	—93	450	55
510	65.00	25.60	10.42	—1.02	1,667	—17	427	56
—680	72.00	19.1	10.40	—1.51	2,250	—84	430	57
—1,500	48.82	42.15	10.65	—1.61	1,240	—20	529	58
2,510	75.71	17.36	10.51	—3.59	3,500	—125	608	59
1,100	58.57	27.43	10.86	3.14	1,400	44	384	60
—3,800	60.02	14.66	10.23	—5.80	2,729	—153	400	61
—2,250	75.00	19.88	10.75	—5.63	1,333	—75	265	62
700	50.00	37.50	10.75	1.75	1,333	23	500	63
1,465	52.42	31.48	10.86	5.24	1,398	73	440	64
—380	46.67	45.00	11.50	—8.17	1,000	—32	450	65
—3,120	58.75	38.25	10.20	—5.20	1,500	—78	544	66
—1,000	29.23	65.90	10.46	—5.59	886	—50	584	67
—1,125	67.86	23.25	10.43	—1.61	2,333	—33	543	68
—6,775	76.86	16.76	10.17	—3.87	3,500	—136	587	69
—1,840	71.33	24.00	10.80	—6.13	2,143	—131	514	70
—520	57.86	34.05	10.57	—2.48	1,750	—43	596	71
—1,880	52.94	41.19	11.41	—5.53	971	—54	400	72
—1,700	53.48	37.43	10.46	—1.37	1,309	—18	490	73
—18,600	67.22	27.70	10.17	—5.17	1,800	—93	500	74
—980	45.45	45.45	10.87	—1.78	1,375	—25	625	75
2,880	53.33	31.67	10.20	4.80	1,200	58	380	76
100	71.43	17.86	10.54	.18	1,400	3	250	77
—1,300	58.62	31.03	11.24	—1.90	1,813	—16	563	78
—6,657	66.94	25.62	12.32	—4.83	2,000	—98	512	79
—1,000	56.00	32.00	12.40	—4.0	1,667	—7	533	80
480	42.86	42.86	10.86	3.43	1,400	48	600	81
5,480	30.00	33.00	10.60	27.40	1,000	274	320	82
5,140	71.43	10.71	10.51	7.34	3,684	271	395	83
—5	26.13	62.46	11.56	—05	666	—	416	84
—108	51.21	36.97	13.07	—66	644	—4	294	85
—1,040	60.00	33.33	13.60	—6.93	1,154	—80	385	86
—1,470	59.46	37.84	10.65	—7.95	1,542	—123	533	87
—2,680	60.00	13.33	10.24	—8.57	2,500	—89	333	88
—2,710	55.56	40.00	10.47	—6.02	1,500	—90	600	89
2,840	38.10	38.10	10.29	13.52	955	129	364	90
21,000	50.00	20.00	12.50	17.50	1,875	328	375	91
1,422	40.00	40.00	10.52	9.48	938	89	375	92
—920	69.00	—	10.60	—4.60	2,000	—92	500	93
1,250	40.00	49.00	11.00	9.00	1,000	90	400	94
3,730	6.67	54.47	14.00	24.87	600	149	327	95
2,320	33.33	36.40	14.80	15.47	1,500	232	546	96

Building—Continued.

Number of es- tablishment..	Average num- ber of em- ployes	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
97	65	\$65,000	\$35,000	\$60,000	\$100,000	\$5,000	5.00	\$13,900
98	20	3,000	6,240	25,000	40,000	8,760	21.90	4,180
99	20	1,000	5,000	30,000	40,000	5,000	12.50	4,060
100	35	4,000	7,800	20,000	29,400	1,600	5.44	3,180
101	18	8,000	9,000	65,000	78,000	4,000	5.13	8,280
102	10	4,000	5,000	10,000	16,500	1,500	9.09	1,890
103	18	6,000	7,500	14,000	23,650	2,150	9.09	2,725
104	22	6,000	15,000	30,000	58,000	13,000	22.41	6,160
105	13	400	7,200	4,500	13,512	1,812	13.41	1,375
106	10	1,000	5,000	5,000	12,500	2,500	20.00	1,310
107	30	13,000	11,000	84,000	50,000	5,000	10.00	5,780

CARRIAGES AND WAGONS.

1	40	\$100,000	\$20,000	\$42,000	\$75,000	\$13,000	17.33	\$13,500
2	12	12,000	5,600	3,400	10,500	1,500	14.19	1,770
3	120	147,000	45,000	75,000	200,000	80,000	40.00	28,820
4	25	10,000	10,955	15,239	35,800	9,606	26.83	4,180
5	8	13,000	5,000	2,000	14,000	7,000	50.00	2,180
6	13	2,650	5,200	4,000	14,000	4,800	34.29	1,559
7	12	2,000	5,928	6,000	14,328	2,400	16.75	1,553
8	16	40,000	9,600	6,300	20,000	4,100	20.50	4,400
9	10	10,000	6,000	5,000	16,000	5,000	31.25	2,300
10	10	2,000	5,200	6,000	15,000	3,800	25.33	1,620
11	35	15,000	15,000	15,000	40,000	10,000	25.00	4,900
12	10	2,500	5,000	6,500	15,000	3,500	23.33	1,650
13	25	7,000	12,000	6,000	25,000	7,000	28.00	2,920
14	13	1,000	6,600	4,800	12,000	600	5.00	1,260
15	60	27,000	15,000	36,000	60,000	9,000	15.00	7,620
16	20	10,000	12,000	10,000	26,000	4,000	15.38	3,200
17	293	650,000	119,925	115,412	429,160	193,823	45.16	81,916
18	100	50,000	45,000	55,000	125,000	25,000	20.00	15,500
19	70	50,000	29,500	30,000	68,000	8,500	12.50	9,800
20	100	40,000	40,000	50,000	150,000	60,000	40.00	17,400
21	30	35,000	10,000	22,000	55,000	23,000	41.82	7,600
22	25	30,000	10,400	10,000	33,000	12,600	38.18	5,100
23	22	30,000	11,697	15,140	33,268	6,431	19.33	5,127
24	53	30,000	22,610	22,610	53,500	8,280	15.48	7,150
25	46	30,000	23,400	50,000	100,000	26,600	26.60	11,800
26	12	25,000	6,000	6,000	15,000	3,000	20.00	3,000
27	9	20,000	6,000	7,000	15,000	2,000	13.33	2,700
28	12	20,000	6,000	14,000	25,000	5,000	20.00	3,700
29	17	15,000	7,500	8,000	20,000	4,500	22.50	2,900
30	59	15,000	28,875	10,000	50,000	11,125	22.25	5,900
31	31	14,000	18,200	20,000	50,000	11,800	23.60	5,840
32	25	13,000	14,000	15,000	35,000	6,000	17.14	4,280
33	15	10,000	8,200	10,000	22,500	4,300	19.11	2,850
34	10	10,000	5,200	5,400	12,000	1,400	11.67	1,800
35	12	8,000	6,750	3,600	14,500	4,150	28.62	1,930
36	16	7,000	9,600	25,400	38,000	3,000	78.95	4,220
37	15	6,000	6,850	4,200	14,250	3,200	22.46	1,785
38	12	5,000	6,300	2,800	10,500	1,400	13.33	1,350
39	12	5,000	5,400	12,000	24,000	6,600	27.50	2,700
40	13	4,500	5,500	9,000	17,950	3,450	19.28	2,065
41	15	4,000	5,000	5,000	12,000	2,000	16.67	1,440
42	11	4,000	7,000	6,000	19,400	6,400	32.99	2,180
43	10	4,000	7,000	3,000	13,000	3,000	23.08	1,540
44	9	2,580	6,150	3,600	11,350	1,600	14.10	1,290
45	10	5,000	7,020	12,000	22,820	3,800	16.65	2,582
46	25	30,000	13,000	20,000	45,000	12,000	26.67	6,300
47	7	10,000	5,000	10,000	18,000	3,000	16.67	2,400

Building—Continued.

Number of es- tablishment..	Average yearly earnings of each employe	Average yearly net profit or loss per em- ploye.....	Average yearly product per employe.....	Percentage of net profit or loss of value of product...	Percentage of interest and expenses of value of pro- duct.....	Percentage of wages paid of value of pro- duct.....	Percentage of stock used of value of pro- duct.....	Net profit or loss.....
97	\$5.88	-\$137	\$1,538	-8.90	13.90	35.00	60.00	-\$8,900
98	312	229	2,000	11.45	10.45	15.60	62.50	4,500
99	250	47	2,000	2.35	10.15	12.50	75.00	910
100	223	-45	840	-1.97	10.82	26.53	68.03	-1,500
101	500	-238	4,333	-5.49	10.62	11.54	83.33	-4,200
102	500	-39	1,650	-2.37	11.45	30.30	60.61	-390
103	417	-32	1,314	-2.43	11.52	31.71	59.20	-375
104	682	311	2,636	11.79	10.62	25.86	51.72	6,800
105	554	34	1,039	3.23	10.18	53.23	33.30	437
106	500	119	1,250	9.52	10.48	40.00	40.00	1,190
107	367	-26	1,667	-1.56	11.56	22.00	68.00	-780

a Less than one dollar loss.

CARRIAGES AND WAGONS.

1	\$500	-\$13	\$1,875	-.67	18.00	26.67	56.00	-\$500
2	467	-23	875	-2.57	16.86	53.33	32.38	-270
3	375	427	1,667	25.59	14.41	22.50	37.50	51,180
4	438	217	1,432	15.16	11.67	30.60	42.57	5,426
5	625	603	1,750	34.43	15.57	35.71	14.29	4,820
6	400	249	1,077	23.15	11.14	37.14	28.57	3,241
7	494	71	1,194	5.91	18.39	41.40	41.88	847
8	600	-19	1,250	-1.50	22.00	48.00	31.50	-300
9	600	280	1,600	17.50	13.75	37.50	31.25	2,800
10	520	218	1,500	14.53	10.80	34.67	40.00	2,180
11	429	146	1,143	12.75	12.25	37.50	37.50	5,100
12	500	185	1,500	12.33	11.00	33.33	43.33	1,850
13	480	163	1,000	16.32	11.68	48.00	24.00	4,080
14	508	-51	923	-5.50	10.50	55.00	40.00	-660
15	250	23	1,000	2.30	12.70	25.00	60.00	1,330
16	600	40	1,300	3.08	12.31	46.15	38.46	800
17	409	382	1,465	26.08	19.09	27.94	26.89	111,907
18	450	95	1,250	7.60	12.40	36.00	44.00	9,500
19	421	-19	971	-1.91	14.41	43.38	44.12	-1,300
20	400	426	1,500	28.40	11.60	26.67	33.33	42,600
21	333	513	1,833	28.00	13.82	18.18	40.00	15,400
22	416	300	1,320	22.73	15.45	31.52	30.30	7,500
23	532	59	1,512	3.92	15.41	35.16	45.51	1,304
24	427	21	1,009	2.11	13.36	42.26	42.26	1,130
25	509	322	2,174	14.80	11.80	23.40	50.00	14,800
26	500	a -	1,250	a -	20.00	40.00	40.00	a -
27	667	-78	1,667	-4.67	18.00	40.00	46.67	-700
28	500	108	2,083	5.20	14.80	24.00	56.00	1,300
29	441	94	1,176	8.00	14.50	37.50	40.00	1,600
30	489	89	847	10.45	11.80	57.75	20.00	5,225
31	587	192	1,613	11.92	11.68	36.40	40.00	5,960
32	560	69	1,400	4.91	12.23	40.00	43.86	1,720
33	547	97	1,500	6.44	12.67	36.45	44.44	1,450
34	520	-40	1,200	-3.33	15.00	43.33	45.00	-400
35	563	185	1,208	15.31	13.31	46.55	24.83	2,220
36	600	-76	2,375	-3.21	11.11	25.26	66.84	-1,220
37	457	94	950	9.93	12.53	48.07	29.47	1,415
38	525	4	875	.48	12.86	60.00	26.67	50
39	450	325	2,000	16.25	11.25	22.50	50.00	3,900
40	423	107	1,381	7.72	11.50	30.64	50.14	1,385
41	333	37	800	4.67	12.00	41.67	41.67	560
42	636	384	1,764	21.75	11.24	36.08	30.93	4,220
43	700	146	1,300	11.23	11.85	53.85	23.08	1,460
44	683	34	1,261	2.73	11.37	54.19	31.72	310
45	702	122	2,282	5.34	11.31	30.76	52.59	1,218
46	520	228	1,800	12.67	14.00	23.89	44.44	5,700
47	714	86	2,571	3.33	13.33	27.78	55.56	600

Carriages and Wagons—Continued.

Estimated in- terest and ex- penses.....	Percentage of gross profit of value of pro- duct.....	Gross profit or loss.....	Value of pro- duct.....	Stock used....	Wages paid during the year.....	Capital invest- ed.....	Average num- ber of em- ployes.....	Number of es- tablishment..
\$4,846	18.57	\$7,327	\$39,455	\$19,300	\$12,828	\$15,000	30	48
1,528	19.69	2,560	13,000	4,200	6,240	8,800	12	49
5,900	20.00	7,000	35,000	17,000	11,000	40,000	30	50
14,100	14.07	19,000	135,000	80,000	36,000	10,000	75	51
1,600	15.38	2,000	13,000	6,000	5,000	5,000	10	52
5,000	40.00	14,000	35,000	15,000	6,000	25,000	14	53
1,800	12.50	1,500	12,000	5,000	5,500	10,000	16	54
2,160	16.67	2,500	15,000	7,000	5,500	11,000	15	55
1,865	9.23	1,500	16,250	8,400	6,350	4,000	18	56
2,100	33.33	5,000	15,000	5,000	5,000	10,000	10	57
1,660	19.31	2,500	13,000	5,000	5,500	6,000	10	58
2,300	42.50	8,500	20,000	6,000	5,500	5,000	12	59
2,360	55.00	11,000	20,000	4,000	5,000	6,000	11	60
2,520	11.11	2,000	18,000	9,000	7,000	12,000	13	61
3,100	35.18	7,740	22,000	8,000	6,260	15,000	10	62
2,931	10.48	1,814	17,311	10,318	5,179	20,000	20	63
3,080	34.48	8,550	24,800	8,750	7,500	10,000	12	64
6,540	36.94	20,400	55,200	27,300	7,500	17,000	16	65
3,010	30.91	6,800	22,000	10,200	5,000	13,500	11	66
3,620	11.43	4,000	35,000	25,000	6,000	2,000	9	67
1,860	33.33	5,000	15,000	4,000	6,000	6,000	10	68
10,500	12.53	9,400	75,000	50,000	15,600	50,000	40	69
2,600	45.00	9,000	20,000	6,000	5,000	10,000	10	70
2,700	13.33	2,000	15,000	8,000	5,000	20,000	12	71
68,000	10.00	50,000	500,000	340,000	110,000	300,000	228	72
3,100	40.00	10,000	25,000	9,000	6,000	10,000	20	73
6,400	37.50	15,000	40,000	12,500	12,500	40,000	20	74
4,500	24.24	8,000	33,000	15,000	10,000	20,000	20	75
8,616	16.67	11,860	71,160	45,000	14,300	25,000	35	76
1,543	3.45	429	12,429	7,000	5,000	5,000	8	77
47,600	21.35	63,200	296,000	162,000	70,800	300,000	130	78
2,800	10.62	2,018	19,000	10,000	6,982	15,000	15	79
2,930	14.05	2,600	18,500	9,500	6,400	18,000	12	80
3,900	27.78	7,500	27,000	12,000	7,500	20,000	21	81
5,800	12.50	5,000	40,000	25,000	10,000	30,000	25	82
1,250	20.00	2,200	11,000	3,800	5,000	2,500	12	83

CHEMICAL PREPARATIONS.

1	21	\$12,750	\$6,500	\$1,500	\$30,000	\$22,000	73.33	\$3,765
2	120	200,000	52,000	240,000	325,000	33,000	10.15	44,500
3	25	100,000	14,000	175,000	230,000	41,000	17.83	29,000
4	30	30,000	10,000	30,000	60,000	20,000	33.33	7,800
5	75	100,000	31,350	450,000	560,000	78,650	14.04	62,000
6	90	35,000	30,000	180,000	250,000	40,000	16.00	27,100
7	20	60,000	10,500	50,000	80,000	19,500	24.38	11,600
8	220	150,000	42,000	307,400	450,000	100,600	22.36	54,000
9	32	8,000	14,320	41,828	68,866	12,718	18.47	7,367
10	60	100,000	36,000	280,000	350,000	34,000	9.71	41,000
11	90	200,000	38,700	438,020	650,400	173,680	26.70	77,040

Carriages and Wagons—Continued.

Net profit or loss.....	Percentage of stock used of value of product	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product....	Average yearly product per employè.....	Average yearly net profit or loss per employè.....	Average yearly earnings of each employe	Number of establishment...
\$2,481	48.92	32.51	12.28	6.29	\$1,315	\$83	\$428	48
732	32.31	48.00	14.06	5.53	1,083	61	520	49
1,100	48.57	31.43	16.86	3.14	1,167	37	367	50
4,900	59.26	26.67	10.45	3.63	1,800	65	480	51
400	46.16	38.46	12.31	3.08	1,300	40	500	52
9,000	42.86	17.14	14.29	25.71	2,500	643	429	53
—800	41.67	45.83	15.00	—2.50	750	—19	314	54
340	46.67	36.67	14.40	2.27	1,000	23	367	55
—365	51.69	39.08	11.48	—2.25	903	—20	353	56
2,900	33.33	33.33	14.00	19.33	1,500	290	500	57
840	38.46	42.31	12.77	6.46	1,300	84	550	58
6,200	30.00	27.50	21.50	31.00	1,667	517	458	59
8,640	20.00	25.00	11.80	43.20	1,813	785	455	60
—520	50.00	38.89	14.00	—2.89	1,385	—40	538	61
4,640	36.36	28.45	14.09	21.09	2,200	461	626	62
—1,117	59.60	29.92	16.93	—6.45	866	—56	259	63
5,470	35.28	30.24	12.42	22.06	2,067	456	625	64
13,860	49.46	13.59	11.85	25.11	3,450	866	469	65
3,790	46.36	22.73	13.68	17.23	2,000	345	455	66
380	71.43	17.14	10.34	1.09	3,889	42	667	67
3,140	26.67	40.00	12.40	20.93	1,500	314	600	68
—1,100	66.67	20.80	14.00	—1.47	1,875	—28	390	69
6,400	30.00	25.00	13.00	32.00	2,600	640	500	70
—700	53.33	33.33	18.00	—4.67	1,250	—58	417	71
—18,000	68.00	22.00	13.60	—3.60	2,193	—79	482	72
6,900	36.00	24.00	12.40	27.60	1,250	345	300	73
8,600	31.25	31.25	16.00	21.50	2,000	430	625	74
3,500	45.45	30.30	13.64	10.61	1,650	175	500	75
3,244	63.24	20.10	12.11	4.56	2,033	93	409	76
—1,114	56.32	40.23	12.42	—8.96	1,154	139	625	77
15,600	54.73	23.92	16.08	5.27	2,277	120	545	78
—782	52.63	36.75	14.74	—4.12	1,267	—52	465	79
—830	51.35	34.59	15.84	—1.78	1,542	—28	533	80
3,600	44.44	27.78	14.44	13.33	1,286	171	357	81
—800	62.50	25.00	14.50	—2.00	1,600	—32	400	82
950	34.55	45.45	11.36	8.64	917	79	417	83

a Neither profit nor loss.

CHEMICAL PREPARATIONS.

\$18,235	5.00	21.67	12.55	60.78	\$1,364	\$829	\$295	1
—11,500	73.85	16.00	13.69	—3.54	2,708	—96	433	2
12,000	76.09	6.09	12.61	5.22	9,200	480	560	3
12,200	50.00	16.67	13.00	20.33	2,000	407	333	4
16,650	80.36	5.60	11.07	2.97	7,467	222	418	5
12,900	72.00	12.00	10.84	5.16	2,778	143	333	6
7,900	62.50	13.13	14.50	9.88	4,000	395	525	7
46,600	68.31	9.33	12.00	10.36	2,045	212	191	8
5,351	60.74	20.79	10.70	7.77	2,152	167	448	9
7,000	80.00	10.29	11.71	—2.00	5,833	—117	600	10
96,640	67.35	5.95	11.85	14.86	7,227	174	430	11

CIGARS.

Number of es- tablishment..	Average num- ber of em- ployes	Capital invest- ed.....	Wages paid during the year	Stock used	Value of pro- duct	Gross profit or loss.....	Percentage of gross profit of value of pro- duct	Estimated in- terest and ex- penses.....
1	20	\$12,000	\$9,500	\$8,000	\$28,000	\$10,500	37.50	\$3,520
2	16	10,000	6,000	10,000	20,000	4,000	20.00	2,600
3	13	500	5,460	4,200	20,250	10,590	52.30	2,055
4	12	2,000	5,530	6,500	13,100	1,070	8.17	1,430
5	34	15,000	11,383	16,000	40,000	12,617	31.54	4,900
6	10	3,500	5,000	6,000	15,000	4,000	26.67	1,710
7	9	3,000	5,616	4,800	15,000	4,584	30.56	1,680
8	110	35,000	50,000	115,000	175,000	10,000	5.71	19,600
9	38	12,000	17,000	18,000	57,000	22,000	38.60	6,420
10	46	15,000	17,500	30,000	60,000	12,500	20.83	6,900
11	16	2,500	8,500	5,000	20,000	6,500	32.50	2,150
12	75	10,000	25,000	35,000	70,000	10,000	14.29	7,600
13	30	40,000	19,864	46,200	75,304	9,240	12.27	9,930
14	30	9,000	18,720	30,000	53,440	4,720	8.83	5,834
15	50	5,000	25,272	28,728	64,800	10,800	16.67	6,780
16	10	3,000	5,200	9,100	18,200	3,900	21.43	2,000
17	11	18,000	5,000	25,000	32,800	2,800	8.54	4,360
18	14	4,000	6,800	12,790	25,500	5,910	23.18	2,790
19	150	25,000	45,000	30,000	150,000	75,000	50.00	16,500
20	12	12,000	6,000	10,000	20,000	4,000	20.00	2,720
21	30	7,000	7,000	25,000	40,000	8,000	20.00	4,420
22	65	30,000	25,000	50,000	120,000	45,000	37.50	13,800
23	50	20,000	20,000	18,000	60,000	22,000	36.67	7,200
24	25	5,000	10,400	25,000	50,000	14,600	29.20	5,300
25	32	10,000	13,000	22,000	40,000	5,000	12.50	4,600
26	20	5,000	12,014	17,163	35,800	6,623	18.50	3,880
27	12	1,200	5,200	9,400	15,600	1,000	6.41	1,632
28	16	6,000	5,500	11,350	19,600	2,750	14.03	2,320
29	16	3,000	6,920	12,760	21,500	1,820	8.47	2,330
30	25	17,000	11,500	12,000	45,000	21,500	47.78	5,520
31	18	12,366	8,325	12,366	21,939	1,248	5.69	2,936
32	14	10,000	5,500	7,200	18,000	5,300	29.44	2,400
33	50	25,000	16,000	40,000	70,000	14,000	20.00	8,500
34	24	6,000	9,360	10,000	25,000	5,640	22.56	2,860
35	80	4,000	21,000	35,000	60,000	4,000	6.67	6,240
36	22	18,000	13,000	29,880	50,000	7,120	14.24	6,080
37	10	10,000	5,000	15,000	22,000	2,000	9.09	2,800
38	21	3,000	9,984	5,220	17,400	2,196	12.62	1,920
39	16	3,000	6,000	8,000	20,000	6,000	30.00	2,180

CLOCKS AND WATCHES.

1	100	\$50,000	\$70,000	\$16,000	\$150,000	\$64,000	42.67	\$18,000
2	15	10,000	7,860	1,930	12,500	2,710	21.68	1,850
3	1,021	1,443,827	519,444	143,216	898,711	236,051	26.27	176,501
4	402	275,000	147,014	50,000	220,712	23,698	10.74	38,571
5	121	240,000	64,656	28,711	106,698	13,331	12.49	25,070

CLOTHING.

1	13	\$1,000	\$7,500	\$10,000	\$20,000	\$2,500	12.50	\$2,240
2	9	5,000	6,500	4,500	16,000	5,000	31.25	1,900
3	1,250	1,000,000	375,000	1,500,000	2,000,000	125,000	6.25	260,000
4	750	1,000,000	300,000	1,500,000	2,000,000	200,000	10.00	260,000
5	975	600,000	300,000	1,000,000	1,500,000	200,000	13.33	186,000

CIGARS.

Net profit or loss	Percentage of stock used of value of product	Percentage of wages paid of value of product	Percentage of interest and expenses of value of product	Percentage of net profit or loss of value of product	Average yearly product per ploye	Average yearly net profit or loss per employe	Average yearly earnings of each employe	Number of establishment..
\$6,980	28.57	33.93	12.57	24.93	\$1,400	\$349	\$475	1
1,400	50.00	30.00	13.00	7.00	1,250	88	375	2
8,535	20.74	26.96	10.15	42.15	1,558	657	420	3
—860	49.62	42.21	10.92	—2.75	1,092	—30	461	4
7,717	40.00	28.46	12.25	19.29	1,176	227	335	5
2,290	40.00	33.33	11.40	15.27	1,500	229	500	6
2,904	32.00	37.44	11.20	19.36	1,667	323	624	7
—9,600	65.71	28.57	11.20	—5.49	1,591	—87	455	8
15,580	31.58	29.82	11.26	27.33	1,500	410	447	9
5,600	50.00	29.17	11.50	9.33	1,304	122	380	10
4,350	25.00	42.50	10.75	21.75	1,250	272	531	11
2,400	50.00	35.71	10.86	3.43	933	32	333	12
—690	61.35	26.38	13.19	— .92	2,510	—23	662	13
—1,164	56.14	35.03	11.01	—2.18	1,781	—39	624	14
4,020	44.33	39.00	10.46	6.20	1,296	80	505	15
1,900	50.00	28.57	10.99	10.44	1,820	190	520	16
—1,560	76.22	15.24	13.29	—4.76	2,982	—142	455	17
3,120	50.16	26.67	10.94	12.24	1,821	—223	486	18
58,500	20.00	30.00	11.00	39.00	1,000	390	300	19
1,280	50.00	30.00	13.60	6.40	1,667	107	500	20
3,580	62.50	17.50	11.05	8.95	1,333	119	233	21
31,200	41.67	20.83	11.50	26.00	1,846	480	385	22
14,800	30.00	33.33	12.00	24.67	1,200	296	400	23
9,300	50.00	20.80	10.60	18.60	2,000	372	416	24
400	55.00	32.50	11.50	1.00	1,250	13	406	25
2,743	47.94	33.56	10.84	7.66	1,790	137	601	26
—632	60.26	33.33	10.46	—4.05	1,300	—53	433	27
430	57.91	28.06	11.84	2.19	1,225	27	344	28
—510	59.35	32.19	10.84	—2.37	1,344	—32	433	29
15,980	26.67	25.56	12.27	35.51	1,800	639	460	30
—1,688	56.37	37.95	13.38	—7.69	1,219	—94	463	31
2,900	40.00	30.56	13.33	16.11	1,286	207	393	32
5,500	57.14	22.86	12.14	7.86	1,400	110	320	33
2,780	40.00	37.44	11.44	11.12	1,042	116	390	34
—2,240	58.33	35.00	10.40	—3.73	750	—28	263	35
1,040	59.76	26.00	12.16	2.08	2,273	47	591	36
—800	68.18	22.73	12.73	—3.64	2,200	80	500	37
276	30.00	57.38	11.03	1.59	829	13	475	38
3,820	40.00	30.00	10.90	19.10	1,250	239	375	39

CLOCKS AND WATCHES.

\$46,000	10.67	46.67	12.00	30.67	\$1,500	\$460	\$700	1
860	15.44	62.88	14.80	6.88	833	57	524	2
59,550	15.94	57.80	19.64	6.63	880	58	509	3
—14,873	22.65	66.61	17.48	—6.74	549	—37	366	4
—11,739	26.91	60.60	23.50	—11.00	882	—97	534	5

CLOTHING.

\$260	50.00	37.50	11.20	1.30	\$1,538	\$20	\$577	1
3,100	28.13	40.63	11.88	19.38	1,778	344	722	2
—135,000	75.00	18.75	13.00	—6.75	1,600	—108	300	3
—60,000	75.00	15.00	13.00	—3.00	2,667	—80	400	4
14,000	66.67	20.00	12.40	.93	1,538	14	308	5

Clothing—Continued.

Number of establishment..	Average number of employees.....	Capital invested	Wages paid during the year	Stock used.....	Value of product.....	Gross profit or loss.....	Percentage of gross profit of value of product.....	Estimated interest and expenses.....
6	1,000	\$500,000	\$325,338	\$1,064,000	\$1,477,000	\$87,662	5.94	\$177,700
7	35	300,000	200,000	825,000	1,200,000	175,000	14.58	138,000
8	400	275,000	130,000	550,000	700,000	20,000	2.86	86,500
9	600	250,000	200,000	600,000	900,000	100,000	11.11	105,000
10	175	250,000	100,000	75,000	200,000	25,000	12.50	35,000
11	100	200,000	24,000	150,000	300,000	126,000	42.00	42,000
12	30	200,000	100,000	350,000	600,000	150,000	25.00	72,000
13	100	200,000	85,000	275,000	425,000	65,000	15.29	54,500
14	240	150,000	150,000	225,000	475,000	100,000	21.05	56,500
15	75	150,000	20,000	100,000	145,000	25,000	17.24	23,500
16	50	150,000	45,000	350,000	450,000	55,000	12.22	54,000
17	400	150,000	150,000	600,000	800,000	50,000	6.25	89,000
18	150	100,000	50,000	200,000	300,000	50,000	16.67	36,000
19	70	78,000	73,440	242,000	338,000	22,560	6.67	38,480
20	160	75,000	50,000	100,000	200,000	50,000	25.00	24,500
21	150	75,000	45,000	225,000	300,000	30,000	10.00	34,500
22	122	50,000	40,000	135,000	225,000	50,000	22.22	25,500
23	75	50,000	25,000	150,000	200,000	25,000	12.50	23,000
24	50	45,000	20,551	38,000	75,000	16,449	21.93	10,200
25	84	30,000	21,000	70,000	105,000	11,000	10.48	12,300
26	140	30,000	15,000	150,000	225,000	60,000	26.67	24,300
27	10	30,000	5,000	20,000	30,000	5,000	16.67	4,800
28	30	12,000	6,000	14,000	25,000	5,000	20.00	3,220
29	20	10,000	10,000	14,000	30,000	6,000	20.00	3,600
30	36	3,000	9,600	11,000	25,000	4,400	17.60	2,680
31	100	40,000	30,000	100,000	150,000	20,000	13.33	17,400
32	90	10,000	64,000	180,000	300,000	56,000	18.67	30,600
33	40	15,000	17,825	47,175	80,000	15,000	18.75	8,900
34	30	20,000	16,000	35,000	60,000	9,000	15.00	7,200
35	25	10,000	13,500	30,000	50,000	6,500	13.00	5,600
36	12	6,000	6,657	10,652	19,973	2,664	13.34	2,357
37	58	25,000	45,000	49,000	125,000	31,000	24.80	14,000
38	11	14,000	6,500	20,000	30,000	3,500	11.67	3,840
39	33	15,000	20,000	25,000	55,000	10,000	18.19	6,400
40	15	2,000	7,000	10,000	20,000	3,000	15.00	2,120
41	13	22,500	7,150	15,000	26,350	4,200	15.94	3,965
42	15	5,000	6,500	16,000	28,000	5,500	19.64	3,100
43	15	5,000	12,500	10,000	28,000	5,500	19.64	3,100
44	20	10,000	9,000	12,000	28,000	7,000	25.00	3,400
45	15	4,000	5,678	21,500	33,500	6,322	18.87	3,590
46	20	5,000	8,000	12,000	28,000	8,000	28.57	3,100
47	7	1,500	5,000	7,000	14,000	2,000	14.29	1,490
48	20	10,000	15,000	23,000	50,000	12,000	24.00	5,600
49	34	15,000	22,312	40,000	70,000	7,688	10.98	7,900
50	25	30,000	15,000	25,000	60,000	20,000	33.33	7,800
51	80	50,000	70,000	105,000	200,000	25,000	12.50	23,000
52	35	20,000	25,000	30,000	70,000	15,000	21.43	8,200
53	20	8,000	13,000	15,000	45,000	17,000	37.78	4,980
54	15	1,500	9,360	9,500	25,000	6,140	24.56	2,590
55	20	5,000	10,000	21,000	35,000	4,000	11.43	3,800
56	58	15,000	44,699	61,072	129,796	24,025	18.50	13,850
57	250	200,000	75,000	300,000	450,000	75,000	16.67	57,000
58	200	100,000	50,000	17,000	250,000	30,000	12.00	31,000
59	300	75,000	93,900	175,000	300,000	31,100	10.37	34,500
60	250	75,000	70,000	130,000	250,000	50,000	20.00	29,500
61	84	45,000	27,850	78,000	132,312	26,462	20.00	15,931
62	60	30,000	12,000	60,000	100,000	28,000	28.00	11,800
63	40	20,000	12,000	25,000	50,000	13,000	26.00	6,200
64	47	11,000	20,000	30,000	75,000	25,000	33.33	8,160
65	40	10,000	10,000	30,000	50,000	10,000	20.00	5,000
66	17	8,000	5,500	15,000	23,000	2,500	10.87	2,780
67	25	8,000	9,330	40,000	62,250	12,920	20.76	6,785
68	30	6,000	13,000	16,000	35,000	6,000	17.14	3,860
69	31	3,000	5,200	15,000	25,000	4,800	19.20	2,680
70	30	2,000	9,875	5,000	22,000	7,125	32.39	2,320

Clothing—Continued.

Net profit or loss	Percentage of stock used of value of product	Percentage of value of product	Percentage of interest and expenses of value of product	Percentage of net profit or loss of value of product	Average yearly product per employe	Average yearly net profit or loss per employe	Average yearly earnings of each employe	Number of establishment
—\$90,039	72 04	29 03	12 03	—5 10	\$1,477	—\$100	\$325	6
37,000	68 75	16 67	11 50	3 08	34,286	1,057	5,714	7
—66,500	11 57	18 57	12 36	—9 50	1,750	—104	325	8
—3,000	66 67	22 32	11 67	—56	1,600	—8	333	9
—10,000	37 50	50 00	17 50	—5 00	1,143	—57	571	10
84,000	50 00	8 00	14 00	28 00	3,000	840	240	11
78,000	58 33	16 67	12 00	13 00	20,000	2,000	3,333	12
10,500	64 71	20 00	12 82	2 47	4,250	105	850	13
43,500	47 37	31 58	11 89	9 16	1,979	181	625	14
1,500	68 97	13 79	16 21	1 03	1,933	20	267	15
1,000	77 78	10 00	12 00	.22	9,000	20	900	16
—30,000	75 00	18 75	11 13	—4 88	2,000	08	375	17
14,000	66 67	16 67	12 00	4 67	2,000	08	333	18
—15,020	71 60	21 73	11 30	—7 71	4,829	—127	1,049	19
25,500	50 00	25 00	12 25	12 75	1,250	179	313	20
—4,500	75 00	15 00	11 50	—1 50	2,000	30	900	21
24,500	60 00	17 78	11 33	10 89	1,844	201	328	22
2,000	73 00	12 50	11 50	1 00	2,667	57	333	23
6,249	50 67	27 40	13 60	8 33	1,500	175	411	24
—1,300	66 67	22 86	11 71	—1 24	1,250	15	296	25
35,700	66 67	6 67	16 30	15 87	1,607	255	107	26
200	66 67	16 67	16 00	.67	3,000	20	500	27
1,780	56 00	24 00	12 00	7 12	833	39	200	28
2,400	46 67	34 33	12 00	8 00	1,500	120	500	29
1,720	44 00	38 40	10 72	6 88	694	45	367	30
2,600	66 67	20 00	11 60	1 73	1,500	20	900	31
25,400	60 00	21 34	10 20	8 47	3,333	282	711	32
6,100	58 97	22 28	11 13	7 63	2,000	153	446	33
1,800	50 34	26 67	12 00	3 00	2,000	60	533	34
600	60 00	27 00	11 20	1 80	2,000	36	540	35
507	53 33	33 33	11 80	1 54	1,664	36	555	36
17,000	39 20	36 00	11 20	13 60	2,155	293	776	37
—340	66 67	21 67	12 00	—1 13	2,727	—31	591	38
3,600	45 45	36 36	11 64	6 55	1,667	109	606	39
880	50 00	33 00	10 60	4 40	1,333	59	467	40
215	56 93	27 13	15 12	82	2,027	17	550	41
2,400	57 14	23 21	11 07	8 57	1,867	160	433	42
2,400	35 71	44 64	11 07	8 57	1,867	160	433	43
3,600	42 86	32 14	12 14	12 86	1,400	180	400	44
2,732	11 18	16 95	10 72	8 16	2,253	182	379	45
4,900	42 86	28 57	11 07	17 50	1,400	245	400	46
510	50 00	35 71	10 64	3 64	2,000	73	714	47
6,400	46 00	30 00	11 20	12 80	2,500	320	750	48
—212	57 14	31 87	11 29	—30	2,059	—6	656	49
12,200	41 67	25 00	13 00	20 33	2,400	488	600	50
2,000	62 50	35 00	11 50	1 00	2,500	25	875	51
6,800	42 86	35 71	11 71	9 71	2,000	194	714	52
12,020	33 33	28 89	11 07	26 71	2,250	601	650	53
3,550	38 00	37 14	10 36	14 20	1,667	237	624	54
200	60 00	28 57	10 86	.57	1,750	10	500	55
10,145	47 05	34 44	10 69	7 82	2,238	175	771	56
18,000	66 67	16 67	12 67	4 00	1,800	72	900	57
—1,000	68 00	20 00	12 40	—40	1,250	—5	250	58
—3,400	58 33	31 30	11 50	—1 13	1,000	—11	313	59
20,500	53 00	28 00	11 80	8 20	1,000	82	280	60
10,531	58 95	21 05	12 04	7 96	1,575	125	392	61
16,200	60 00	12 00	11 80	16 20	1,667	270	200	62
6,800	50 00	24 00	12 40	13 60	1,250	170	300	63
16,840	40 00	26 67	10 88	22 45	1,596	358	426	64
4,400	60 00	20 00	11 20	8 80	1,250	110	250	65
—240	65 23	23 91	12 09	—1 22	1,353	—16	324	66
8,215	64 26	14 99	10 77	9 98	2,490	249	373	67
2,140	45 71	37 14	11 03	6 11	1,167	71	433	68
2,120	60 00	20 00	10 72	8 48	806	69	168	69
4,865	22 73	44 89	10 50	21 84	733	160	329	70

Clothing—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
71	22	\$2,500	\$7,850	\$9,100	\$19,500	\$2,550	13.08	\$2,100
72	73	20,000	30,000	104,000	147,400	13,400	9.09	15,940
73	36	20,000	12,000	90,000	120,000	18,000	15.00	13,200
74	11	1,000	5,000	4,000	10,000	1,000	10.00	1,060
75	20	5,000	7,900	15,000	30,000	7,100	23.67	3,300
76	260	75,000	35,000	150,000	200,000	15,000	7.50	24,500
77	100	1,000	5,000	7,000	16,000	4,000	25.00	1,660
78	70	5,000	16,000	30,000	55,000	9,000	16.36	5,800
79	17	1,000	5,000	4,500	15,000	5,500	36.67	1,560
80	250	25,000	35,000	125,000	195,000	35,000	17.95	21,000
81	107	20,000	28,000	73,000	115,000	14,000	12.17	12,700
82	110	10,000	16,865	38,520	68,750	13,365	19.44	7,475
83	58	15,000	20,150	79,500	110,000	10,350	9.41	11,900
84	128	75,000	40,000	200,000	300,000	60,000	20.00	34,500
85	137	15,000	18,000	55,000	80,000	7,000	8.75	8,900
86	72	25,000	40,000	80,000	150,000	30,000	20.00	16,500
87	119	30,000	30,000	93,500	130,000	6,500	5.00	14,800
88	250	12,000	62,350	108,000	178,500	8,150	4.57	18,570
89	21	2,500	5,000	12,000	19,000	2,000	10.53	2,050
90	38	5,000	9,000	23,000	49,000	17,000	34.69	5,200
91	45	33,000	20,000	25,000	55,000	10,000	18.18	7,480
92	39	12,000	10,000	20,000	31,000	1,000	3.23	3,820
93	110	15,000	37,450	100,000	175,000	37,550	21.46	18,400
94	32	40,000	11,700	34,000	60,000	14,300	23.83	8,400
95	33	4,000	7,225	28,515	38,000	2,260	5.95	4,040
96	23	15,000	11,000	30,000	45,000	4,000	8.89	5,400
97	20	18,000	7,500	22,000	36,000	6,500	18.06	4,680
98	94	15,000	17,500	55,000	80,000	7,500	9.38	8,900
99	14	8,675	5,314	8,675	15,816	1,827	11.55	2,103
100	24	24,000	7,300	20,000	31,450	4,150	13.20	4,585
101	10	10,000	6,000	1,000	15,000	8,000	53.33	2,100
102	50	15,000	20,167	15,000	61,800	26,133	42.63	7,030
103	38	10,000	8,030	30,000	60,000	21,970	36.62	6,600
104	34	50,000	12,610	65,000	84,110	6,500	7.73	11,411
105	14	4,000	5,000	3,500	10,000	1,500	15.00	1,240
106	15	15,000	6,000	12,000	20,000	2,000	10.00	2,900
107	20	10,000	5,500	10,000	22,000	6,500	29.55	2,800
108	16	10,000	5,500	8,140	18,000	4,360	24.22	2,400
109	15	200	6,633	10,000	21,000	4,367	20.80	2,112
110	100	100,000	20,000	300,000	400,000	80,000	20.00	46,000
111	35	12,500	6,830	35,170	45,000	3,000	6.67	5,250
112	14	1,500	6,500	13,000	22,000	2,500	11.36	2,290
113	100	15,000	6,000	65,000	75,000	4,000	5.33	8,400
114	132	75,000	30,000	95,000	145,000	20,000	13.79	19,000
115	30	17,000	21,400	30,000	60,000	8,600	14.33	7,020
116	10	10,000	6,200	18,000	31,000	6,800	21.94	3,700
117	18	30,000	6,600	45,000	55,000	3,400	6.18	7,300
118	10	20,000	6,000	20,000	40,000	14,000	35.00	5,200
119	26	20,000	7,800	40,000	60,000	12,200	20.33	7,200
120	20	15,000	12,000	35,000	60,000	13,000	21.67	6,900

COOKING AND HEATING APPARATUS.

1	85	\$400,000	\$43,000	\$45,000	\$400,000	\$312,000	78.00	\$64,000
2	115	200,000	63,000	62,000	175,000	50,000	28.57	29,500
3	48	50,000	22,500	48,167	89,319	18,652	20.88	11,932
4	35	55,400	24,282	63,254	90,910	3,374	3.71	12,415
5	130	140,000	75,000	80,000	200,000	45,000	22.50	28,400
6	125	250,000	60,000	52,900	150,000	37,100	24.73	30,000
7	30	10,000	22,000	19,000	50,000	9,000	18.00	5,600
8	10	5,000	6,300	12,000	30,000	11,700	39.00	3,900
9	90	45,000	38,000	80,000	140,000	22,000	15.71	16,700
10	95	20,000	56,000	280,000	350,000	14,000	4.00	36,200

Clothing—Continued.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product....	Average yearly product per employe.....	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe	Number of establishments..
\$450	46.67	40.26	10.77	2.31	\$886	\$20	\$357	71
-2,540	70.56	20.35	10.81	-1.72	2,019	-35	411	72
4,800	75.00	10.00	11.00	4.00	3,333	133	333	73
-60	40.00	50.00	10.60	-1.60	909	-5	455	74
3,800	50.00	26.33	11.00	12.67	1,500	190	395	75
-9,500	75.00	17.50	12.25	-4.75	769	-37	135	76
2,340	43.75	31.25	10.38	14.63	160	23	50	77
3,200	54.55	29.09	10.55	5.82	786	46	229	78
3,940	30.00	33.33	10.40	26.27	882	292	294	79
14,000	64.10	17.95	10.77	7.18	780	56	140	80
1,300	63.48	24.35	11.04	1.13	1,075	12	262	81
5,890	56.03	24.53	10.87	8.57	625	54	153	82
-1,550	72.27	18.32	10.82	-1.41	1,897	-27	347	83
25,500	66.67	13.33	11.50	8.50	2,344	199	313	84
-1,900	68.75	22.50	11.13	-2.38	534	-14	131	85
13,500	53.33	26.67	11.00	9.00	2,083	188	556	86
-8,300	71.92	23.08	11.38	-6.38	1,092	-70	252	87
-10,420	60.50	34.93	10.40	-5.84	714	-42	249	88
-50	63.16	26.32	10.79	-2.26	905	-2	238	89
11,800	46.94	18.37	10.61	24.08	1,289	311	237	90
2,520	45.45	36.36	13.60	4.58	1,222	56	445	91
-2,820	64.52	32.26	12.32	-9.10	795	-72	256	92
19,150	57.14	21.40	10.51	10.94	1,591	174	340	93
5,990	56.67	19.50	14.00	9.83	1,875	184	366	94
-1,780	75.04	19.01	10.63	-4.68	1,152	-54	219	95
-1,400	66.67	24.44	12.00	-3.11	1,957	-61	478	96
1,820	61.11	20.83	13.00	5.06	1,800	91	375	97
-1,400	63.75	21.88	11.13	-1.75	851	-15	186	98
-276	54.85	33.60	13.30	-1.75	1,130	-20	380	99
-435	63.59	23.21	14.53	-1.38	1,310	-18	304	100
5,900	6.67	40.00	14.00	39.33	1,500	590	600	101
19,103	24.47	32.90	11.47	31.16	1,226	382	403	102
15,370	50.00	13.38	11.00	25.62	1,579	404	211	103
-4,911	77.28	14.99	13.57	-5.84	2,474	-144	371	104
260	35.00	50.00	12.40	2.60	714	19	357	105
-900	60.00	30.00	14.50	-4.50	1,333	-60	400	106
3,700	45.45	25.00	12.73	16.82	1,100	185	275	107
1,960	45.22	30.56	13.33	10.89	1,125	123	344	108
2,255	47.62	31.59	10.06	10.74	1,400	150	442	109
34,000	75.00	5.00	11.50	8.50	4,000	340	200	110
-2,250	78.16	15.18	11.67	-5.00	1,286	-64	195	111
210	59.09	29.55	10.41	.95	1,571	15	464	112
-4,400	86.67	8.00	11.20	-5.87	750	-44	60	113
1,000	65.52	20.69	13.10	.69	1,098	8	227	114
1,580	50.00	35.67	11.70	2.63	2,000	53	713	115
3,100	58.06	20.00	11.93	10.00	3,100	310	620	116
-3,900	81.82	12.00	13.27	-7.09	3,056	-217	367	117
8,800	50.00	15.00	13.00	22.00	4,000	880	600	118
5,000	66.67	13.00	12.00	8.33	2,308	192	300	119
6,100	58.33	20.00	11.50	10.17	3,000	305	600	120

COOKING AND HEATING APPARATUS.

\$240,000	11.25	10.75	16.00	62.00	\$4,706	\$2,918	\$506	1
20,500	35.43	36.00	16.86	11.71	1,522	178	548	2
6,720	53.93	25.19	13.36	7.52	1,861	140	448	3
-9,041	69.58	26.71	13.66	-9.95	2,597	-258	694	4
16,600	40.00	37.50	14.20	8.30	1,538	128	577	5
7,100	35.27	40.00	20.00	4.73	1,200	571	480	6
3,400	38.00	44.00	11.20	6.80	1,667	113	733	7
8,400	40.00	21.00	11.00	28.00	3,000	840	630	8
5,300	57.14	27.14	11.93	3.79	1,566	59	422	9
-22,200	80.00	16.00	10.34	-6.34	3,684	-234	589	10

Cooking and Heating Apparatus—Continued.

Number of establishment..	Average number of employees.....	Capital invested.....	Wages paid during the year.....	Stock used	Value of product	Gross profit or loss	Percentage of gross profit of value of product	Estimated interest and expenses.....
11	14	\$8,000	\$9,000	\$22,000	\$35,000	\$4,000	11.43	\$3,980
12	60	30,000	19,000	35,750	68,230	13,480	19.76	8,623
13	24	20,000	14,000	55,000	80,000	11,000	13.75	9,250
14	12	10,000	5,000	10,000	20,000	5,000	25.00	2,600
15	30	20,000	9,500	30,000	50,000	10,500	21.00	6,200
16	16	12,000	8,000	7,000	20,000	5,000	25.00	2,720
17	30	40,000	10,000	14,000	50,000	26,000	52.00	7,400
18	83	75,000	40,000	40,000	100,000	20,000	20.00	14,500
19	41	50,000	22,950	10,042	45,421	12,429	27.36	7,542
20	46	50,000	45,000	25,000	80,000	10,000	12.50	11,000

CURED AND PACKED MEATS.

1	30	\$50,000	\$6,000	\$258,000	\$330,600	\$66,600	20.15	\$36,060
2	21	75,000	6,000	287,000	316,300	23,300	7.37	36,130
3	45	7,000	25,200	1,217,300	1,255,000	12,500	1.00	125,920
4	15	19,000	9,000	378,500	426,250	38,750	9.09	43,765
5	8	12,000	5,550	292,137	309,687	12,000	3.87	31,689
6	28	100,000	14,000	161,000	205,200	30,200	14.72	20,520
7	12	25,000	6,000	91,762	109,140	11,378	10.43	12,414
8	10	21,600	6,400	75,149	90,000	8,451	9.39	10,296
9	15	100,000	9,500	255,785	299,032	33,747	11.29	35,903
10	125	100,000	60,270	2,255,503	2,330,953	15,180	.65	239,095
11	140	100,000	48,749	1,571,954	1,627,429	6,726	.41	168,743
12	62	100,000	33,383	1,014,946	1,084,346	31,017	2.86	114,435
13	64	90,000	30,956	918,816	1,054,841	75,069	7.12	110,884
14	175	50,000	48,393	1,493,348	1,607,722	65,981	4.10	163,772
15	50	40,000	23,292	416,000	456,000	16,708	3.66	48,000
16	170	120,000	28,000	1,205,000	1,253,200	20,200	1.61	132,520
17	83	25,000	14,400	573,226	606,500	18,274	3.11	62,150
18	39	30,000	12,711	484,075	534,800	43,014	7.97	55,780
19	50	15,000	8,361	236,500	263,893	19,032	7.21	27,289
20	40	45,000	7,000	188,200	202,000	6,800	3.37	22,900
21	12	20,000	5,000	177,400	190,633	8,233	4.32	20,263
22	850	150,000	414,825	7,642,376	8,380,223	323,022	3.85	847,022
23	300	250,000	170,000	3,194,092	3,753,102	389,010	10.37	300,310
24	70	125,000	36,540	918,050	1,009,051	24,461	2.42	108,405
25	60	90,000	20,592	629,789	718,150	67,769	9.44	77,215
26	50	50,000	35,000	1,326,000	1,411,000	50,000	3.54	144,100
27	900	600,000	477,228	6,129,817	6,728,393	121,348	1.80	708,839
28	350	100,000	145,150	2,018,000	2,280,000	116,850	5.13	234,000
29	20	25,000	12,000	232,400	265,000	20,600	7.77	28,000
30	45	20,000	14,000	137,000	153,500	2,500	1.63	16,550
31	80	200,000	35,000	919,105	985,000	30,895	3.14	110,500
32	56	100,000	32,000	1,220,600	1,315,000	62,400	4.75	137,500
33	70	66,000	36,400	3,147,509	3,330,317	146,408	4.40	346,992
34	20	20,000	7,220	1,866,597	1,892,555	18,738	.99	190,456
35	12	20,000	7,200	125,300	147,310	14,810	10.05	15,931
36	8	12,000	5,000	63,000	72,000	4,000	5.56	7,920
37	40	25,000	18,000	623,300	675,000	33,700	4.99	69,000
38	25	150,000	16,000	362,000	418,000	40,000	9.57	50,000
39	20	75,000	14,500	192,320	210,000	3,180	1.51	25,500
40	1,525	2,500,000	758,700	12,946,480	17,500,000	3,794,820	21.11	1,900,000
41	850	1,000,000	356,000	7,076,225	8,436,225	1,004,000	11.90	903,623
42	175	350,000	59,938	2,686,420	2,896,000	149,642	5.17	310,600
43	300	350,000	90,000	2,599,000	2,791,000	102,000	3.65	300,100
44	240	350,000	130,867	2,599,860	2,861,888	131,161	4.58	307,189
45	85	350,000	47,635	1,406,657	1,584,000	129,708	8.19	179,400
46	66	678,750	12,932	428,750	505,994	64,313	12.71	91,324
47	40	75,000	6,000	170,000	185,000	9,000	4.86	23,000
48	6	25,000	11,000	136,905	150,000	2,095	1.40	16,500
49	175	150,000	12,000	600,000	625,000	13,000	2.08	71,500
50	20	50,000	7,000	130,000	140,000	3,000	2.14	17,000

Cooking and Heating Apparatus—Continued.

Net profit or loss	Percentage of stock used of value of product	Percentage of wages paid of value of product	Percentage of interest and expenses of value of product	Percentage of net profit or loss of value of product....	Average yearly product per employe.....	Average yearly net profit or loss per employe	Average yearly earnings of each employe	Number of establishments..
\$20	62.86	25.71	11.37	.06	\$2,500	\$1	\$643	11
4,857	52.40	27.85	12.64	7.12	1,137	81	317	12
1,800	68.75	17.50	11.50	2.25	3,333	75	583	13
2,400	50.00	25.00	13.00	12.00	1,667	200	417	14
4,300	60.00	19.00	12.40	8.60	1,667	143	317	15
2,280	35.00	40.00	13.60	11.40	1,250	143	500	16
18,600	28.00	20.00	14.80	37.20	1,667	620	333	17
5,500	40.00	40.00	14.50	5.50	1,205	66	482	18
4,887	22.11	50.53	16.60	10.76	1,108	119	560	19
-1,000	31.25	56.25	13.75	-1.25	1,739	-22	978	20

CURED AND PACKED MEATS.

\$30,540	78.04	1.81	10.91	9.24	\$11,020	\$1,018	\$200	1
-12,830	90.74	1.90	11.42	-4.06	15,062	-611	286	2
-113,420	97.00	2.01	10.03	-9.04	27,889	-2,520	560	3
-5,015	88.80	2.11	10.27	-1.18	28,417	-334	600	4
-19,689	94.33	1.79	10.23	-6.36	38,711	-2,461	694	5
3,680	78.46	6.82	12.92	1.79	7,329	131	500	6
-1,036	84.08	5.50	11.37	-95	9,095	-86	500	7
-1,845	83.50	7.11	11.44	-2.05	9,000	-185	640	8
-2,156	85.54	3.18	12.01	-72	19,935	-144	633	9
-223,915	96.76	2.59	10.26	-9.61	18,648	-1,791	482	10
-162,017	96.59	3.00	10.37	-9.96	11,624	-1,157	348	11
-83,418	93.60	3.54	10.55	-7.69	17,489	-1,345	619	12
-35,815	89.95	2.93	10.51	-3.40	16,482	-560	484	13
-97,791	92.89	3.01	10.19	-6.08	9,187	-559	277	14
-31,292	91.23	5.11	10.53	-6.86	9,320	-626	466	15
-112,320	96.15	2.23	10.57	-8.96	7,371	-661	165	16
-43,276	94.51	2.37	10.25	-7.14	7,307	-521	173	17
-12,766	89.68	2.35	10.33	-2.36	13,841	-327	326	18
-8,257	89.62	3.17	10.34	-3.13	5,278	-165	167	19
-16,100	93.17	3.47	11.34	-7.97	5,050	-403	175	20
-12,030	93.06	2.62	10.63	-6.31	15,886	-1,003	417	21
-524,000	91.20	4.95	10.11	-6.25	9,859	-616	488	22
-1,300	85.11	4.53	10.40	-03	12,510	-4	567	23
-83,944	93.95	3.62	10.74	-8.32	14,415	-1,199	522	24
-9,446	87.70	2.87	10.75	-1.32	11,968	-157	343	25
-91,100	93.98	2.48	10.21	-6.67	28,220	-1,882	700	26
-57,491	91.10	7.09	10.54	-8.73	7,476	-653	530	27
-117,150	88.51	6.37	10.27	-5.14	6,514	-335	415	28
-7,400	87.70	4.53	10.57	-2.79	13,250	-370	600	29
-14,050	89.25	9.12	10.78	-9.15	3,411	-312	311	30
-79,605	93.31	3.55	11.22	-8.08	12,313	-995	438	31
-75,100	92.82	2.43	10.46	-5.70	23,422	-1,341	571	32
-190,584	94.51	1.09	10.12	-5.72	47,576	-2,723	520	33
-171,718	98.63	.38	10.06	-9.07	94,628	-8,586	361	34
-1,121	85.06	4.89	10.81	-76	12,276	-93	600	35
-3,920	87.50	6.94	11.00	-5.44	9,000	-490	625	36
-35,300	92.34	2.67	10.22	-5.23	16,875	-883	450	37
-10,800	86.60	3.83	12.15	-2.58	16,720	-432	640	38
-22,320	91.58	6.90	12.14	-10.63	10,500	-1,116	725	39
1,894,820	73.98	4.34	10.86	10.83	11,475	1,243	498	40
100,377	83.88	4.22	10.71	1.19	9,925	118	419	41
-150,958	92.76	2.07	10.73	-5.56	16,549	-920	343	42
-198,100	93.12	3.22	10.75	-7.10	9,303	-660	300	43
-176,028	90.84	4.57	10.73	-6.15	11,925	-733	545	44
-49,692	88.80	3.01	11.33	-3.14	18,635	-585	560	45
-27,012	84.73	2.56	18.05	-5.34	7,667	-409	196	46
-14,000	91.89	3.24	12.43	-7.57	4,625	-350	150	47
-14,406	91.27	7.33	11.00	-9.60	25,000	-2,401	1,833	48
-58,500	96.00	1.92	11.44	-9.36	3,571	-334	69	49
14,000	92.86	5.00	12.14	-10.00	7,000	-700	350	50

Cured and Packed Meats—Continued.

Number of es- tablishment...	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
51	1,165	\$400,000	\$300,000	\$2,183,792	\$3,500,000	\$1,016,208	29.03	\$374,000
52	375	400,000	80,019	1,785,227	2,000,000	134,754	6.74	224,000
53	1,000	750,000	150,000	2,135,000	2,450,000	165,000	6.73	290,000
54	20	40,000	7,500	142,000	150,035	535	.36	17,404

DRUGS AND MEDICINES.

1	10	\$5,000	\$6,000	\$6,000	\$14,000	\$2,000	14.29	\$1,700
2	30	25,000	11,250	125,000	250,000	113,750	45.50	26,500
3	18	50,000	8,000	50,000	90,000	32,000	35.56	12,000
4	33	10,000	11,700	75,000	100,000	13,300	13.30	10,600
5	17	5,000	5,364	50,000	60,000	4,696	7.83	6,300
6	23	12,000	7,500	15,000	35,000	12,500	35.71	4,220
7	12	2,000	7,000	8,000	30,000	15,000	50.00	3,120
8	8	2,000	8,000	5,000	25,000	12,000	48.00	2,620
9	40	120,000	18,000	42,000	84,000	24,000	28.57	15,600

FLOUR AND MEAL.

1	10	\$20,000	\$5,500	\$107,000	\$117,500	\$5,000	4.26	\$12,960
2	12	50,000	9,716	247,836	272,580	15,028	5.51	30,258
3	10	20,000	6,583	65,850	79,680	7,247	9.10	9,168
4	13	27,000	7,000	206,000	225,000	12,000	5.33	24,120
5	18	50,000	9,000	259,500	280,000	11,500	4.11	31,000
6	9	40,000	5,250	217,987	238,330	15,093	6.33	26,233
7	14	62,000	10,574	279,148	315,595	25,873	8.20	35,280
8	10	50,000	8,000	122,500	130,500	.....	.....	16,050
9	20	100,000	12,000	214,000	264,000	38,000	14.39	32,400
10	10	50,000	5,500	56,000	80,000	18,500	23.13	11,000
11	39	100,000	18,000	650,000	700,000	32,000	4.57	76,000
12	10	25,000	5,000	47,000	55,550	3,550	6.39	7,055
13	20	30,000	6,000	125,523	151,665	20,142	13.28	16,967
14	24	3,500	9,000	153,800	183,800	21,000	11.43	18,590
15	26	45,000	9,000	164,130	190,440	17,310	9.09	21,744
16	25	90,000	10,000	190,130	220,140	20,010	9.09	27,414
17	28	100,000	10,000	196,540	227,520	20,980	9.22	28,752
18	14	26,000	5,000	132,000	164,000	27,000	16.46	17,960
19	24	40,000	13,449	175,600	190,000	951	.50	21,400
20	18	30,000	6,500	320,000	389,000	62,500	16.06	40,700
21	9	23,000	5,350	107,800	141,900	28,750	20.26	15,570
22	35	250,000	21,000	454,370	482,375	7,005	1.45	63,238
23	28	150,000	19,500	393,829	423,911	10,582	2.50	51,391
24	6	25,000	5,000	50,000	65,000	10,000	15.38	8,000
25	21	75,000	13,000	219,500	275,000	42,500	15.45	32,000
26	16	35,000	9,965	112,000	124,900	2,935	2.35	14,590
27	8	18,000	5,250	81,820	95,670	8,600	8.99	10,647
28	15	30,000	7,000	77,500	104,000	19,500	18.75	12,200
29	25	45,000	8,650	180,200	191,800	2,950	1.54	21,880
30	8	20,000	5,000	76,600	90,000	8,400	9.33	10,200
31	15	35,000	5,500	171,300	197,150	20,350	10.32	21,815
32	7	30,000	6,000	99,500	116,000	10,500	9.05	13,400
33	12	6,000	5,400	92,000	101,700	4,300	4.23	10,530
34	4	8,000	7,320	73,200	82,750	2,230	2.69	8,755
35	25	46,000	10,600	208,000	233,000	14,400	6.18	26,060

Cured and Packed Meats—Continued.

Net profit or loss.....	Percentage of stock used of value of product	Percentage of wages paid of value of product	Percentage of interest and expenses of value of product	Percentage of net profit or loss of value of product.....	Average yearly product per employe.....	Average yearly net profit or loss per employe	Average yearly earnings of each employe	Number of establishments..
\$642,218	62.39	8.57	10.69	18.35	\$3,004	\$551	\$258	51
—89,246	89.26	4.00	11.20	—4.46	5,333	—238	213	52
—125,000	87.14	6.12	11.84	—5.10	2,450	—125	150	53
—16,869	94.64	5.00	11.60	—11.24	7,502	—8,043	375	54

DRUGS AND MEDICINES.

\$300	42.86	42.86	12.14	2.14	\$1,400	\$30	\$600	1
87,250	50.00	4.50	10.60	34.90	8,333	2,908	375	2
20,000	55.56	8.89	13.33	22.22	5,000	1,111	444	3
2,700	75.00	11.70	10.60	2.70	3,030	82	355	4
—1,604	83.33	8.84	10.50	—2.67	3,529	—94	312	5
8,280	42.86	21.43	12.06	23.66	1,522	360	326	6
11,880	26.67	23.33	10.40	39.60	2,500	990	583	7
9,320	20.00	32.00	10.48	37.52	3,125	1,173	100	8
8,400	50.00	21.45	18.57	10.00	2,100	210	450	9

FLOUR AND MEAL.

—\$7,950	91.06	4.69	11.02	—6.77	\$11,750	—\$795	\$550	1
—15,230	90.92	3.56	11.10	—5.59	22,715	—1,269	810	2
—1,921	82.64	8.26	11.51	—2.41	7,968	—192	658	3
—12,120	91.56	3.11	10.72	—5.39	17,308	—932	538	4
—19,500	92.68	3.21	11.07	—6.96	15,555	—1,083	500	5
—11,140	91.46	2.20	11.01	—4.67	26,481	—1,238	583	6
—9,413	88.45	3.35	11.18	—2.98	22,543	—972	755	7
—16,050	93.87	6.13	12.30	—12.30	13,050	—1,605	800	8
3,600	81.06	4.55	12.27	2.12	13,200	280	600	9
7,500	70.00	6.88	13.75	9.88	8,000	750	550	10
—44,000	92.86	2.57	10.86	—6.29	17,949	—1,128	462	11
—3,505	84.61	9.00	12.70	—6.31	5,555	—351	500	12
3,175	82.76	3.96	11.19	2.09	7,583	159	300	13
2,410	83.68	4.90	10.11	1.31	7,658	100	375	14
—4,434	86.18	4.73	11.42	—2.33	7,325	—171	346	15
—7,404	86.37	4.54	12.45	—3.36	8,806	—296	400	16
—7,772	86.38	4.40	12.64	—3.42	8,126	—278	357	17
9,040	80.49	3.05	10.95	5.51	11,714	646	357	18
—20,449	92.42	7.08	11.26	—10.76	7,917	—852	560	19
21,800	82.26	1.67	10.46	5.60	21,611	1,211	361	20
13,180	75.97	3.77	10.97	9.29	15,767	1,464	594	21
—56,233	94.19	4.35	13.11	—11.66	13,782	—1,607	600	22
—40,809	92.90	4.60	12.12	—9.63	15,140	—1,457	696	23
2,000	76.92	7.69	12.31	3.08	10,833	333	833	24
10,500	79.82	4.73	11.64	3.82	13,095	500	619	25
—11,655	89.67	7.98	11.68	—9.33	7,806	—728	623	26
—2,047	85.52	5.49	11.13	—2.14	11,959	—256	656	27
7,300	74.52	6.73	11.73	7.02	6,933	487	467	28
—18,930	93.95	4.51	11.41	—9.87	7,672	—757	346	29
—1,800	85.11	5.56	11.33	—2.00	11,250	—225	625	30
—1,465	86.89	2.80	11.07	—74	13,143	—98	367	31
—2,900	85.78	5.17	11.55	—2.50	16,571	—414	857	32
—6,230	90.46	5.31	10.35	—6.13	8,475	—529	450	33
—6,525	88.46	8.85	10.58	—7.89	20,688	—1,631	1,830	34
—11,660	89.27	4.55	11.18	—5.00	9,320	—466	424	35

Flour and Meal—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
36	45	\$125,000	\$20,000	\$460,000	\$550,000	\$70,000	12.73	\$62,500
37	18	40,000	7,000	91,845	107,958	9,113	8.44	13,196
38	20	60,000	12,000	201,500	250,000	36,500	14.60	28,600
39	21	60,000	12,000	202,100	250,400	36,300	14.50	28,640
40	15	20,000	7,500	72,150	87,800	8,150	9.28	9,980
41	20	85,000	10,000	392,500	431,000	28,500	6.61	48,200
42	13	60,000	7,500	136,500	144,000	-----	-----	18,000
43	12	12,000	5,800	107,398	146,632	33,434	22.80	15,383
44	18	90,000	12,310	283,388	300,000	4,302	1.43	35,400
45	24	75,000	25,500	439,700	516,760	51,560	9.98	56,176
46	20	70,000	19,800	326,036	387,125	41,289	10.67	42,913
47	25	25,000	15,000	188,000	251,200	48,200	19.19	26,620
48	20	50,000	13,000	330,000	363,000	20,000	5.51	39,300
49	40	80,000	15,000	534,500	570,000	20,500	3.60	61,800
50	12	80,000	7,150	266,048	315,900	42,702	13.52	36,390
51	11	60,000	6,290	204,200	218,200	7,710	3.53	25,420
52	18	30,000	9,000	129,800	144,000	5,200	3.61	16,200
53	20	59,492	10,930	182,065	198,000	5,005	2.53	23,370
54	44	50,000	25,000	395,436	448,084	27,648	6.17	47,808
55	12	75,000	7,000	305,500	314,500	2,000	.64	35,950
56	27	52,000	10,957	117,000	150,000	22,043	14.70	18,120
57	9	25,000	8,900	148,500	170,000	12,600	7.41	18,500
58	10	40,000	6,700	90,750	111,500	14,050	12.60	13,550
59	16	38,400	7,280	247,864	273,184	18,040	6.60	29,622
60	26	40,000	10,000	218,300	250,000	21,700	8.68	27,400
61	22	150,000	13,000	328,600	350,000	8,400	2.40	44,000
62	11	40,000	5,100	125,000	135,000	4,900	3.63	15,900
63	16	40,000	5,700	216,904	243,000	20,396	8.39	26,700
64	11	20,000	5,400	147,000	159,000	6,600	4.15	17,100
65	11	35,000	7,558	94,090	109,200	7,552	6.92	13,020
66	12	30,000	7,000	119,000	139,987	13,987	9.99	15,790
67	12	35,000	7,000	107,600	120,030	5,436	4.53	14,104
68	18	75,000	15,000	246,286	277,014	15,728	5.68	32,201
69	30	100,000	19,500	277,633	305,368	8,235	2.70	36,537
70	50	150,000	30,000	408,000	475,000	37,000	7.79	56,500
71	19	40,000	13,000	256,000	285,000	16,000	5.61	30,900
72	45	130,000	23,000	269,375	317,000	24,625	7.77	39,500
73	25	50,000	12,000	395,836	431,400	23,564	5.46	46,140
74	14	20,000	8,000	218,000	260,000	34,000	13.08	27,200
75	13	20,000	6,000	195,000	212,500	11,500	5.41	22,450
76	18	65,000	8,205	153,741	168,826	6,880	4.08	20,783
77	27	100,000	12,505	272,925	293,470	7,990	2.72	35,347
78	14	75,000	8,250	199,700	215,250	7,300	3.39	26,025
79	26	40,000	6,560	186,721	211,026	17,745	8.41	23,503
80	15	75,000	5,400	293,600	332,000	33,000	9.94	37,700
81	15	42,500	10,000	208,600	224,000	5,400	2.41	24,950
82	20	100,000	10,000	95,060	110,000	4,940	4.49	17,000
83	10	12,000	8,000	83,150	100,265	9,115	9.09	10,747
84	18	100,000	5,500	80,000	112,000	26,500	23.66	17,200
85	24	60,000	11,450	170,142	208,000	26,408	12.70	24,400
86	20	6,000	6,000	67,000	80,300	7,300	9.09	8,300
87	7	75,000	5,608	159,879	184,365	18,878	10.24	22,937
88	10	35,000	5,400	93,350	109,392	10,642	9.73	13,039
89	10	60,000	5,000	135,000	150,000	10,000	6.67	18,600
90	30	75,000	15,241	256,793	325,000	52,966	16.30	37,000
91	35	75,000	16,000	297,007	400,000	86,993	21.75	44,500
92	15	35,000	6,000	183,150	250,000	60,850	24.34	27,100
93	13	50,000	7,000	143,600	165,000	14,400	8.73	19,500
94	9	30,000	8,000	285,500	303,000	9,500	3.14	32,100
95	50	200,000	28,000	1,195,000	1,300,000	77,000	5.92	142,000
96	25	75,000	7,000	246,390	252,500	—890	—	29,750
97	14	75,000	5,500	131,981	155,500	18,019	11.59	20,050

Flour and Meal—Continued.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product....	Average yearly product per employe.....	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe	Number of establishment..
\$7,500	88.64	3.64	11.36	1.36	\$12,222	\$167	\$444	36
-4,083	85.07	6.48	12.52	-3.78	5,998	-227	389	37
7,900	80.60	4.80	11.44	3.16	12,500	395	600	38
7,660	80.71	4.79	11.44	3.06	11,924	365	571	39
-1,830	82.18	8.54	11.37	-2.08	5,853	-122	500	40
-19,700	91.07	2.32	11.18	-4.57	21,550	-985	500	41
-18,000	94.79	5.21	12.50	-12.50	11,077	-1,385	577	42
18,051	73.24	3.96	10.49	12.31	12,219	1,504	483	43
-31,098	94.46	4.10	11.80	-10.37	16,667	-1,728	684	44
-4,616	85.09	4.93	10.87	-8.89	21,532	-192	1,063	45
-1,624	84.22	5.11	11.09	-4.2	19,356	-81	990	46
21,580	74.84	5.97	10.60	8.59	10,048	863	600	47
-19,300	90.91	3.58	10.83	-5.32	18,150	-965	650	48
-41,300	93.77	2.63	10.84	-7.25	14,250	-1,033	375	49
6,312	84.22	2.26	11.52	2.00	26,325	526	596	50
-17,710	93.58	2.88	11.65	-8.12	19,836	-1,610	572	51
-11,000	90.14	6.25	11.25	-7.64	8,000	-611	500	52
-18,365	91.95	5.52	11.80	-9.27	9,900	-918	547	53
-20,160	88.25	5.58	10.67	-4.50	10,184	-458	568	54
-33,950	97.14	2.23	11.43	-10.79	26,208	-2,829	583	55
3,923	78.00	7.30	12.08	2.62	5,556	145	406	56
-5,900	87.35	5.24	10.88	-3.47	18,889	-655	989	57
500	81.39	6.01	12.15	.45	11,150	50	670	58
-11,582	90.73	2.66	10.84	-4.24	17,074	-724	455	59
-5,700	87.32	4.00	10.96	-2.28	9,615	-219	385	60
-35,600	93.89	3.71	12.57	-10.17	15,909	-1,618	591	61
-11,000	92.59	3.78	11.78	-8.15	12,273	-1,000	464	62
-6,304	89.26	2.35	10.99	-2.59	15,188	-394	356	63
-10,500	92.45	3.40	10.75	-6.60	14,455	-955	491	64
-5,468	86.15	6.92	11.92	-5.01	9,927	-497	687	65
-1,812	85.01	5.00	11.29	-1.29	11,606	-151	583	66
-8,668	89.64	5.83	11.75	-7.22	10,093	-722	583	67
-16,473	88.91	5.41	11.62	-5.94	15,390	-915	833	68
-28,302	90.92	6.39	11.96	-9.27	10,179	-943	650	69
-19,500	85.89	6.32	11.89	-4.11	9,500	-390	600	70
-14,900	89.82	4.56	10.84	-5.23	15,000	-784	684	71
-14,875	84.98	7.26	12.46	-4.69	7,041	-341	511	72
-22,576	91.76	2.78	10.70	-5.21	17,256	-903	480	73
6,800	83.85	3.08	10.40	2.62	18,571	486	571	74
-10,950	91.76	2.82	10.56	-5.15	16,346	-842	462	75
-13,903	91.06	4.86	12.31	-8.24	9,379	-772	456	76
-27,357	93.00	4.28	12.04	-9.32	10,869	-1,013	465	77
-18,725	92.78	3.83	12.09	-8.70	15,375	-1,338	589	78
-5,753	88.48	3.11	11.14	-2.73	8,116	-221	252	79
-4,700	88.43	1.63	11.36	-1.42	22,133	-313	360	80
-19,550	93.13	4.46	11.14	-8.73	14,933	-1,303	667	81
-12,060	86.42	9.09	15.45	-10.96	5,500	-603	500	82
-1,632	82.93	7.98	10.72	-1.63	10,027	-163	800	83
9,300	71.43	4.91	15.36	8.30	6,222	517	306	84
2,008	81.80	5.51	11.73	.97	8,667	84	477	85
-1,090	83.44	7.47	10.45	-1.36	4,015	-55	300	86
-4,059	86.72	3.04	12.44	-2.20	26,338	-580	801	87
-2,397	85.84	4.94	11.92	-2.19	10,939	-240	540	88
-8,600	90.00	3.33	12.40	-5.73	15,000	-860	500	89
15,966	79.01	4.69	11.38	4.91	11,833	532	508	90
42,493	74.25	4.00	11.13	10.62	11,429	1,214	457	91
33,750	73.26	2.40	10.84	13.50	16,667	2,250	400	92
-5,100	87.03	4.24	11.82	-3.09	12,692	-392	538	93
-22,600	94.22	2.64	10.59	-7.46	33,667	-2,511	889	94
-65,000	91.92	2.15	10.92	-5.00	26,000	-1,300	560	95
-39,640	97.58	2.77	11.78	-13.13	10,100	-1,226	280	96
-2,031	84.88	3.54	12.89	-1.31	11,107	-145	393	97

STATISTICS OF LABOR.

FOOD PREPARATION.

Number of es- tablishment...	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
1	25	\$15,000	\$7,500	\$10,000	\$25,000	\$7,500	30.00	\$3,400
2	35	15,000	13,000	61,455	75,185	730	.97	8,419
3	10	10,000	12,000	20,000	40,000	8,000	20.00	4,600
4	175	100,000	90,000	597,813	727,686	39,873	5.48	78,769
5	65	40,000	29,283	158,985	213,882	25,654	11.99	23,788
6	41	53,000	24,825	111,000	178,230	42,405	23.79	21,003
7	14	7,000	7,500	20,000	33,000	5,500	16.67	3,720
8	9	7,000	5,560	22,000	31,000	3,440	11.10	3,520
9	12	6,000	7,000	25,000	40,000	8,000	20.00	4,360
10	16	3,000	7,000	34,000	52,000	11,000	21.15	5,380
11	16	2,000	8,500	43,000	57,000	5,500	9.65	5,820
12	12	9,000	6,500	19,500	32,000	6,000	18.75	3,740
13	10	17,000	5,460	23,800	43,680	14,420	33.01	5,388
14	15	750	6,982	21,290	32,612	4,340	13.31	4,306
15	11	6,000	5,000	24,000	33,350	4,850	13.04	3,695
16	47	40,000	18,000	50,000	90,000	22,000	24.44	11,400
17	35	35,060	15,000	75,000	125,000	35,000	28.00	14,600
18	430	1,000,000	175,000	4,600,000	5,000,000	225,000	4.50	560,000
19	54	125,000	27,100	708,000	821,000	85,900	10.46	89,600
20	20	100,000	7,000	57,000	75,000	11,000	14.67	13,500
21	35	8,800	5,610	91,500	106,800	9,690	9.07	11,208
22	15	100,000	8,700	180,000	256,000	67,300	26.29	31,600
23	32	100,000	15,000	425,000	500,000	60,000	12.00	56,000
24	35	75,000	16,000	200,000	250,000	34,000	13.60	29,500
25	110	70,900	51,100	691,021	816,879	74,758	9.15	85,942
26	29	50,000	18,000	225,000	250,000	7,000	2.80	28,000
27	18	50,000	8,000	200,000	250,000	42,000	16.80	28,000
28	12	40,000	6,500	150,000	180,000	23,500	13.06	20,400
29	20	30,000	15,080	260,000	300,000	24,920	8.31	31,800
30	200	150,000	60,000	450,000	600,000	90,000	15.00	69,000
31	120	100,000	30,000	375,000	450,000	45,000	10.00	51,000
32	24	40,000	9,000	150,000	200,000	41,000	20.50	22,400
33	32	30,000	14,300	50,000	75,000	10,700	14.27	9,300
34	60	30,000	20,000	150,000	200,000	30,000	15.00	21,800
35	70	20,000	30,000	45,000	90,000	15,000	16.67	10,200
36	13	10,000	5,250	36,000	60,000	18,750	31.25	6,600
37	12	8,000	12,000	35,000	60,000	13,000	21.67	6,480
38	18	4,000	8,000	28,000	43,000	7,000	16.28	4,540
39	7	2,500	4,500	16,000	26,000	5,500	21.15	2,750
40	125	40,000	38,000	100,000	150,000	12,000	8.00	17,400
41	24	140,000	14,000	78,000	160,000	68,000	42.50	24,400
42	20	6,000	12,800	160,000	208,000	35,200	16.92	21,160
43	50	20,000	15,000	150,000	200,000	35,000	17.50	21,200
44	17	18,600	5,500	12,600	37,000	18,900	51.08	4,816
45	40	40,000	12,000	75,000	125,000	38,000	30.40	14,900
46	30	15,000	10,300	51,000	74,000	12,700	17.16	8,300
47	50	10,000	17,000	126,415	165,723	22,308	13.46	17,172
48	15	500	5,000	20,000	30,000	5,000	16.67	3,000
49	211	32,000	20,500	55,000	92,000	16,500	17.93	11,120
50	25	2,500	7,800	65,000	75,000	2,200	2.93	7,650
51	15	20,000	7,000	80,000	120,000	33,000	27.50	13,200
52	30	30,000	8,400	56,800	85,000	19,800	23.29	10,300
53	29	35,000	12,000	108,000	130,000	10,000	7.69	15,100
54	10	12,000	5,500	35,000	50,000	9,500	19.00	5,720
55	12	10,000	5,000	20,000	30,000	5,000	16.67	3,600
56	30	20,000	14,500	70,000	100,000	15,500	15.50	11,200

PROFITS AND EARNINGS.

FOOD PREPARATION.

Average yearly earnings of each employe	Average yearly net profit or loss per employe.....	Average yearly product per employe	Percentage of net profit or loss of value of product.....	Percentage of interest and expenses of value of product	Percentage of wages paid of value of product.....	Percentage of stock used of value of product.....	Net profit or loss.....
\$30	\$164	\$1,000	16.40	13.60	30.00	40.00	4.100
37	220	2,148	-10.23	11.20	17.29	81.74	-7.689
1,20	340	4,000	8.50	11.50	30.00	50.00	3.400
51	222	4,158	-5.35	10.82	12.37	82.15	-38.896
45	29	3,290	.87	11.12	13.70	74.31	1.866
60	522	4,347	12.01	11.78	13.93	62.28	21.402
53	127	2,357	5.39	11.27	22.73	60.61	1.780
61	-9	3,444	-.26	11.35	17.94	70.97	-80
58	303	3,333	9.10	10.90	17.50	62.50	3.640
43	351	3,250	10.31	10.35	13.46	65.38	5.620
53	-20	3,563	-.56	10.21	14.91	75.45	-320
54	188	2,667	7.06	11.69	20.31	60.94	2.260
54	903	4,368	20.67	12.33	12.50	54.49	9.032
46	2	2,174	.10	13.20	21.41	65.28	34
45	60	3,032	1.96	11.08	14.99	71.96	655
38	226	1,915	11.78	12.67	20.00	55.56	10.600
42	583	3,571	16.32	11.68	12.00	60.00	20.400
40	-779	11,628	-6.70	11.20	3.50	92.00	-335.000
50	-69	15,204	-.45	10.91	3.30	86.24	-3.700
35	-125	3,750	-3.33	18.00	9.33	76.00	-2.500
16	-43	3,051	-1.42	10.49	5.25	85.67	-1.518
58	2,385	17,067	13.95	12.34	3.40	70.31	35.700
46	125	15,625	.80	11.20	3.00	85.00	4.000
45	129	7,143	1.80	11.80	6.40	80.00	4.500
40	-102	7,426	-1.37	10.52	6.26	84.53	-11.184
62	-724	8,621	-8.40	11.20	7.20	91.00	-21.000
44	778	13,889	5.60	11.20	3.20	80.00	14.000
54	258	15,000	1.72	11.33	3.61	83.33	3.100
75	-344	15,000	-2.29	10.60	5.03	86.67	-6.880
30	105	3,000	3.50	11.50	10.00	75.00	21.000
25	-50	3,750	-1.33	11.33	6.67	83.33	-6.000
37	775	8,333	9.30	11.20	4.50	75.00	18.600
44	44	2,344	1.87	12.40	19.07	66.67	1.400
33	137	3,333	4.10	10.90	10.00	75.00	8.200
42	69	1,286	5.33	11.33	33.33	50.00	4.800
40	935	4,615	20.25	11.00	8.75	60.00	12.150
1,00	543	5,000	10.87	10.80	20.00	58.33	6.520
44	137	2,389	5.72	10.56	18.60	65.12	2.460
64	393	3,174	10.58	10.58	17.31	61.54	2.750
30	-43	1,200	-3.60	11.60	25.33	66.67	-5.400
58	1,817	6,667	27.25	15.25	8.75	48.75	43.600
64	702	10,400	6.75	10.17	6.15	76.92	14.040
30	276	4,000	6.90	10.60	7.50	75.00	13.800
32	828	2,176	38.06	13.02	14.86	34.05	14.084
30	578	3,125	18.48	11.92	9.60	60.00	23.100
34	147	2,467	5.95	11.22	13.92	68.92	4.460
34	103	3,314	3.10	10.36	10.26	76.28	5.136
33	131	2,000	6.57	10.10	16.07	66.67	1.970
9	25	436	5.85	12.09	22.23	59.78	5.380
31	-218	3,000	-7.27	10.20	10.40	86.67	-5.450
46	1,320	8,000	16.50	11.00	5.83	66.67	19.800
28	317	2,833	11.18	12.12	9.88	66.82	9.500
41	-176	4,483	-3.92	11.62	9.23	83.08	-5.100
55	378	5,000	7.56	11.44	11.00	70.00	3.780
41	117	2,500	4.67	12.00	16.67	66.67	1.400
48	143	3,333	4.30	11.20	14.50	70.00	4.300

STATISTICS OF LABOR.

FURNITURE.

Number of es- tablishment..	Average num- ber of em- ployés.....	Capital invest- ed.....	Wages paid during the year.....	Stock used....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
1	120	\$130,000	\$63,000	\$25,000	\$115,000	\$27,000	23.48	\$19,300
2	75	50,000	16,500	25,000	60,000	18,500	30.83	9,000
3	125	120,000	80,070	179,540	301,600	41,990	13.92	37,360
4	25	15,000	15,000	15,000	36,000	6,000	16.67	4,500
5	144	75,000	75,000	60,000	175,000	40,000	22.86	22,000
6	32	7,000	15,600	11,000	30,000	3,400	11.33	3,420
7	40	20,000	25,000	10,000	50,000	15,000	30.00	6,200
8	88	25,000	42,000	150,000	205,000	13,000	6.34	22,000
9	23	20,000	15,351	18,000	40,000	6,649	16.62	5,200
10	22	7,000	8,500	8,000	30,000	13,500	45.00	3,420
11	30	10,000	7,500	7,000	20,000	5,500	27.50	2,600
12	40	40,000	23,000	12,000	60,000	25,000	41.67	8,400
13	33	10,000	15,000	16,000	42,000	11,000	26.19	4,800
14	100	40,000	29,063	30,000	72,000	12,937	17.97	9,600
15	48	13,000	16,800	28,000	55,000	10,200	18.55	6,380
16	12	4,000	7,400	4,000	17,000	5,600	32.94	1,940
17	20	8,000	9,600	9,000	24,000	5,400	22.50	2,880
18	150	50,000	65,000	45,000	140,000	30,000	21.43	17,000
19	24	10,000	12,000	10,000	30,000	8,000	26.67	3,600
20	73	40,000	33,800	135,200	225,000	56,000	24.89	24,900
21	20	8,000	6,000	34,000	45,000	5,000	11.11	4,980
22	30	10,000	12,000	7,500	28,800	9,300	32.29	3,480
23	33	15,000	14,400	12,000	40,000	13,600	34.00	4,900
24	28	8,000	12,726	1,500	30,000	15,774	52.58	3,480
25	15	2,500	9,600	4,500	16,800	2,700	16.07	1,830
26	38	10,000	20,000	14,000	45,000	11,000	24.44	5,100
27	20	5,000	10,150	7,000	30,000	12,850	42.83	3,300
28	30	10,000	18,000	10,000	36,000	8,000	22.22	4,200
29	106	50,000	50,000	70,000	150,000	30,000	20.00	18,000
30	50	30,000	15,000	50,000	80,000	15,000	18.75	9,800
31	64	40,000	25,000	75,000	112,000	12,000	10.71	13,600
32	47	10,000	25,000	50,000	125,000	50,000	40.00	13,100
33	40	20,000	20,000	35,000	60,000	5,000	8.33	7,200
34	45	18,000	10,000	12,000	25,000	3,000	12.00	3,580
35	38	5,000	15,600	10,000	36,000	10,400	28.89	3,900
36	120	120,000	40,500	50,000	125,000	34,500	27.60	19,700
37	60	10,000	25,000	18,000	50,000	7,000	14.00	5,600
38	20	10,000	10,000	25,000	38,000	3,000	7.89	4,400
39	38	35,000	18,172	16,521	40,879	6,186	15.13	6,188
40	50	50,000	35,000	40,000	82,000	7,000	8.54	11,200
41	9	3,000	5,600	8,500	15,000	900	6.00	1,680
42	32	20,000	15,400	24,000	50,000	10,600	21.20	6,200
43	20	500	10,169	20,144	35,646	5,333	14.96	3,595
44	27	2,500	14,200	15,000	35,000	5,800	16.57	3,650
45	10	600	5,500	4,000	12,000	2,500	20.83	1,236
46	35	15,000	14,000	11,700	35,000	9,900	28.57	4,400
47	25	2,500	7,500	15,000	28,000	5,500	19.64	2,950
48	30	4,000	18,700	10,000	40,000	11,900	29.75	4,240
49	35	11,000	6,000	12,000	20,000	2,000	10.00	2,600
50	12	3,000	5,200	1,000	10,000	3,800	38.00	1,180
51	30	10,000	18,000	26,000	55,000	11,000	20.00	6,100
52	8	1,500	5,400	1,000	9,000	2,600	28.89	990
53	13	5,000	7,875	4,500	16,000	3,625	22.66	1,900
54	155	115,000	63,000	135,000	220,000	22,000	10.00	28,900
55	18	4,500	5,100	3,400	10,200	1,700	16.67	1,290
56	150	185,000	90,000	65,000	175,000	20,000	11.43	28,600
57	32	25,000	20,000	100,000	150,000	30,000	20.00	16,500
58	35	10,500	24,000	60,000	90,000	6,000	6.67	9,630
59	25	6,000	13,500	10,500	30,000	6,000	20.00	3,360
60	210	100,000	96,000	102,000	210,000	12,000	5.71	27,000
61	40	50,000	24,395	67,661	125,000	32,944	26.36	15,500
62	45	25,000	18,700	16,500	50,000	14,800	29.60	6,500
63	48	30,000	21,750	24,275	48,000	1,975	4.11	6,600
64	41	25,000	25,000	25,000	65,000	15,000	23.08	8,000
65	16	12,000	5,500	16,000	25,000	3,500	14.00	3,220
66	30	9,000	12,500	16,000	30,000	1,500	5.00	3,510

PROFITS AND EARNINGS.

FURNITURE.

Loss per em- ploye	Average yearly product per employee.....	Percentage of net profit or loss of value of product...	Percentage of interest and expenses of value of pro- duct.....	Percentage of stock used of value of pro- duct.....	Percentage of stock used of value of pro- duct.....	Net profit or loss.....
\$988	1,413	6.78	16.78	54.78	21.74	\$7,700
800	1,440	15.81	15.00	27.50	41.57	9,500
2,413	1,215	1.54	12.39	26.55	59.53	4,000
1,215	998	4.17	12.50	41.67	41.57	1,500
998	1,250	10.20	12.57	42.86	34.29	15,000
1,250	2,330	1.07	11.40	52.00	36.67	1,200
2,330	1,429	17.60	12.40	50.00	20.00	8,500
1,429	1,364	4.39	10.73	30.49	73.17	9,000
1,364	667	3.62	13.00	38.38	45.00	1,449
667	1,580	33.60	11.40	28.33	26.67	10,000
1,580	1,273	14.50	13.00	37.50	35.00	2,900
1,273	720	27.07	14.00	38.33	20.00	16,000
720	1,146	14.76	11.43	35.71	39.10	6,200
1,146	1,417	4.61	13.31	40.38	41.67	3,337
1,417	1,200	7.13	11.42	30.55	50.91	3,920
1,200	933	21.53	11.41	43.53	23.53	3,650
933	1,250	10.50	12.00	40.00	37.50	2,520
1,250	3,062	9.29	12.14	46.43	32.14	13,000
3,062	2,250	14.67	12.00	40.00	33.33	4,400
2,250	960	13.82	11.07	15.02	60.09	31,100
960	1,212	04	11.07	13.33	75.56	20
1,212	1,071	20.21	12.08	41.67	26.04	5,820
1,071	1,120	21.75	12.25	36.00	30.00	8,700
1,120	1,184	40.98	11.60	42.42	5.00	12,294
1,184	1,500	5.18	10.89	57.14	26.78	870
1,500	1,200	13.11	11.33	44.44	31.11	5,900
1,200	1,415	31.83	11.00	33.83	23.33	9,550
1,415	1,690	10.56	11.67	50.00	27.78	3,800
1,690	1,750	8.00	12.00	33.33	46.67	12,000
1,750	2,659	6.50	12.25	18.75	62.50	1,200
2,659	1,580	-1.43	12.14	22.32	66.96	1,600
1,580	556	29.52	10.48	20.00	40.00	15,900
556	947	-3.67	12.00	33.33	58.33	2,200
947	1,042	-2.32	14.32	40.00	48.00	580
1,042	833	18.06	10.83	43.33	27.78	6,500
833	1,900	11.84	15.76	32.40	40.00	14,800
1,900	1,076	2.80	11.20	50.00	36.00	1,400
1,076	1,640	-3.68	11.58	26.32	65.79	1,400
1,640	1,667	15.14	15.14	44.45	40.41	1,200
1,667	1,503	18.66	12.66	42.68	48.78	4,200
1,503	1,782	-5.20	11.20	37.33	56.67	1,780
1,782	1,296	8.80	12.40	30.80	44.00	4,400
1,296	1,000	4.88	10.09	28.53	54.51	1,738
1,000	1,120	6.14	10.43	40.57	42.34	1,215
1,120	1,331	10.53	10.30	45.83	33.33	1,264
1,331	571	14.00	12.57	40.00	33.43	4,900
571	833	9.11	10.54	26.79	53.57	1,550
833	1,833	17.65	10.60	46.75	25.00	1,060
1,833	1,125	-3.30	13.30	30.00	60.00	1,660
1,125	1,231	26.20	11.80	52.00	10.00	2,620
1,231	1,419	8.91	11.09	32.73	47.27	4,000
1,419	567	17.89	11.00	00.00	11.11	1,610
567	1,167	10.78	11.88	49.22	28.13	1,725
1,167	4,698	-3.14	13.14	28.64	61.36	1,725
4,698	2,571	4.02	12.65	50.00	33.35	1,725
2,571	1,200	-4.91	16.34	51.49	37.14	1,725
1,200	1,000	9.00	11.00	13.31	66.67	1,725
1,000	1,200	-4.03	10.70	26.67	66.67	1,725
1,200	1,000	8.80	11.20	45.00	35.00	1,725
1,000	3,125	-7.14	12.86	46.71	48.57	1,725
3,125	1,111	13.96	12.40	19.52	54.13	1,725
1,111	1,030	16.60	13.00	37.40	53.00	1,725
1,030	1,585	-9.64	13.75	45.31	50.57	1,725
1,585	1,663	10.77	12.35	38.46	38.46	1,725
1,663	1,000	1.12	12.68	23.00	64.00	1,725
1,000		-6.80	11.80	41.67	58.33	1,725

Furniture—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year	Stock used	Value of pro- duct	Gross profit or loss.....	Percentage of gross profit of value of pro- duct	Estimated in- terest and ex- penses.....
67	33	\$9,000	\$15,000	\$20,000	\$38,000	\$3,000	7.89	\$4,340
68	25	5,000	10,000	14,500	28,000	3,500	12.50	3,100
69	21	4,500	5,500	12,500	20,000	2,000	10.00	2,270
70	14	4,000	5,540	11,720	21,000	3,740	17.81	2,340
71	13	3,500	7,800	7,900	18,657	2,957	15.85	2,076
72	18	500	10,800	10,000	26,000	5,200	20.00	2,630
73	24	5,000	7,370	6,000	16,000	2,690	16.44	1,900
74	11	5,000	5,000	13,000	30,000	12,000	40.00	3,300
75	12	3,500	7,200	6,500	16,874	3,174	18.81	1,897
76	34	8,000	15,763	9,432	36,000	10,800	30.00	4,080
77	42	6,000	15,200	13,080	39,280	11,000	28.00	4,288
78	25	6,500	8,500	2,000	13,125	2,625	20.00	1,703
79	20	3,000	5,000	7,000	15,000	3,000	20.00	1,680
80	36	25,000	15,000	27,000	50,000	8,000	16.00	6,500
81	12	15,000	5,800	1,500	16,000	8,700	54.38	2,500
82	275	250,000	125,000	250,000	600,000	225,000	37.50	75,000
83	15	10,000	7,000	20,000	40,000	13,000	32.50	4,600
84	52	15,000	28,905	20,404	64,000	14,690	22.95	7,300
85	16	2,000	6,500	3,800	15,000	4,700	31.33	1,620
86	22	15,000	12,250	10,000	38,000	15,750	41.45	4,700
87	12	2,500	6,250	5,000	20,000	8,750	43.75	2,150
88	45	20,000	19,865	8,000	51,369	23,504	45.76	6,337
89	396	250,000	175,000	400,000	600,000	25,000	4.17	75,000
90	25	20,000	8,000	18,000	30,000	4,000	13.33	4,200
91	80	20,000	25,000	40,000	75,000	10,000	13.33	8,700
92	56	70,000	22,500	11,600	60,000	25,900	43.17	10,200
93	58	35,000	22,500	21,000	62,972	19,472	30.92	8,397
94	75	35,000	30,000	30,000	66,000	6,000	9.09	8,700
95	140	65,000	42,900	70,000	130,600	17,700	13.55	16,960
96	70	30,000	22,440	50,000	100,000	27,560	27.56	11,800
97	90	20,000	28,750	22,800	58,853	7,303	12.41	7,085
98	23	14,500	9,076	24,200	40,000	6,724	16.81	4,870
99	21	10,000	11,000	25,000	50,000	14,000	28.00	5,600
100	14	7,000	7,000	16,000	33,000	10,000	30.30	3,720
101	10	7,000	6,500	15,900	28,000	5,600	20.00	3,220
102	20	5,000	12,000	12,000	30,000	6,000	20.00	3,300
103	30	50,000	12,000	35,000	50,000	3,000	6.00	8,000
104	125	35,000	40,000	50,000	250,000	160,000	64.00	27,100
105	38	20,000	20,000	45,000	75,000	10,000	13.33	8,700
106	10	10,000	5,000	5,500	13,000	2,500	19.23	1,900
107	125	100,000	48,000	30,000	125,000	47,000	37.60	18,500
108	14	15,000	5,500	9,300	20,000	5,200	26.00	2,900
109	30	45,000	11,440	28,600	42,700	2,660	6.23	6,970
110	80	70,000	25,000	40,000	75,000	10,000	13.33	11,700
111	65	100,000	50,000	50,000	125,000	25,000	20.00	18,500
112	20	20,000	13,000	35,000	65,000	17,000	26.15	7,700
113	15	10,000	9,360	3,000	15,000	2,640	17.60	2,100
114	11	5,000	5,500	6,000	15,000	3,500	23.33	1,800
115	60	100,000	27,000	56,500	100,000	16,500	16.50	16,000
116	115	100,000	45,000	54,000	150,000	51,000	34.00	21,000
117	56	30,000	25,000	20,000	50,000	5,000	10.00	6,800
118	50	25,000	22,250	30,000	57,000	4,750	8.33	7,200

LEATHER.

1	10	\$5,000	\$5,250	\$18,000	\$25,000	\$1,750	7.00	\$2,800
2	9	2,000	5,616	4,000	13,000	3,384	26.03	1,420
3	10	8,000	6,000	10,000	20,000	4,000	20.00	2,480
4	12	5,000	5,200	12,000	20,000	2,800	14.00	2,300
5	145	50,000	28,759	103,000	147,000	15,241	10.37	17,700
6	66	40,000	42,000	100,000	180,000	38,000	21.11	20,400
7	12	5,000	5,500	10,000	19,000	3,500	18.42	2,200

PROFITS AND EARNINGS.

Furniture—Continued.

Average yearly product per employe.....	Percentage of net profit or loss of value of product....	Percentage of interest and expenses of value of product.....	Percentage of wages paid of value of product.....	Percentage of stock used of value of product.....
\$1.1	8.53	11.42	39.47	52.63
1.1	1.43	11.07	35.71	51.79
1.4	1.35	11.35	27.50	62.50
1.6	6.67	11.14	26.38	55.81
1.4	4.72	11.13	41.81	42.34
1.4	9.88	10.11	41.54	38.46
1.6	4.56	11.88	46.06	37.50
2.7	29.00	11.00	16.67	43.33
1.4	7.57	11.24	42.67	38.52
1.0	18.67	11.33	43.80	26.20
9	17.69	10.92	38.70	33.30
5	7.02	12.96	64.76	15.24
7	8.80	11.20	33.33	46.67
1.3	3.60	13.00	30.00	54.00
1.3	38.75	15.63	36.25	9.38
2.1	25.00	12.50	20.63	41.67
2.6	21.00	11.50	17.50	50.00
1.2	11.55	11.41	45.17	31.88
9	20.53	10.80	43.33	25.33
1.7	29.08	12.37	32.24	26.32
1.6	33.00	10.75	31.25	26.00
1.1	33.42	12.34	38.67	15.57
1.5	8.33	12.50	29.17	66.67
1.2	— .67	14.00	26.67	60.00
9	1.72	11.60	33.33	53.33
1.0	26.17	17.00	37.50	19.33
1.0	17.50	13.33	35.73	33.36
8	— 4.09	13.18	45.45	45.45
9	.57	12.99	32.85	53.60
1.4	15.76	11.80	22.44	50.00
6	.37	12.04	48.85	38.74
1.7	4.64	12.18	22.69	60.50
2.3	16.80	11.20	22.00	50.00
2.3	19.03	11.27	21.21	48.48
2.8	8.50	11.50	23.21	56.79
1.5	9.00	11.00	40.00	40.00
1.6	— 10.00	16.00	24.00	70.00
2.0	53.16	10.84	16.00	20.00
1.9	1.73	11.60	26.67	60.00
1.3	4.62	14.62	38.46	42.31
1.0	22.80	14.80	33.40	24.00
1.4	11.50	14.50	27.50	46.50
1.4	— 10.09	16.32	26.79	66.98
9	— 2.27	15.60	33.33	53.33
1.9	5.20	14.80	40.00	40.00
3.2	14.31	11.85	20.00	53.85
1.0	3.60	14.00	62.40	20.00
1.3	11.33	12.00	36.67	40.00
1.6	.50	16.00	27.00	56.50
1.3	20.00	14.00	30.00	36.00
8	— 3.60	13.60	50.00	40.00
1.1	— 4.30	12.63	39.04	52.63

a. The loss is too small to be considered.

LEATHER.

— 31.050	72.00	21.00	11.20	4.20	\$1.5
1.964	30.77	43.20	10.92	15.11	1.4
1.520	50.00	30.00	12.40	7.60	2.0
500	60.00	26.00	11.50	2.50	1.6
— 2.459	70.07	19.56	12.04	— 1.67	1.0
17.600	55.56	23.33	11.33	9.78	2.7
1.300	52.63	28.96	11.58	6.84	1.5

Leather—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
8	40	\$15,000	\$12,000	\$35,000	\$60,000	\$13,000	21.67	\$6,900
9	45	7,000	17,390	58,840	84,599	8,369	9.89	8,880
10	40	150,000	19,000	85,000	125,000	21,000	16.80	21,500
11	18	42,796	7,710	140,000	177,275	29,565	16.68	20,296
12	167	333,333	95,333	852,500	1,025,000	77,167	7.53	122,500
13	188	350,000	90,000	550,000	750,000	110,000	14.67	96,000
14	80	300,000	40,000	398,000	490,000	52,000	10.61	67,000
15	35	250,000	20,000	200,000	260,000	40,000	15.38	41,000
16	85	130,000	50,000	225,000	300,000	25,000	8.33	37,800
17	46	100,000	20,000	233,222	300,000	46,778	15.59	36,000
18	156	35,000	60,300	200,000	275,000	14,700	5.35	29,600
19	56	100,000	25,000	150,000	210,000	35,000	16.67	27,000
20	40	75,000	16,500	140,000	225,000	68,500	30.44	27,000
21	78	35,000	35,000	180,000	230,000	15,000	6.52	25,100
22	15	30,000	6,666	56,000	75,000	12,334	16.45	9,300
23	29	60,000	13,000	100,000	130,000	17,000	13.08	16,600
24	34	25,000	18,000	105,000	148,000	25,000	16.89	16,300
25	13	10,000	7,000	120,000	140,000	13,000	9.29	14,600
26	15	26,666	6,666	48,000	60,000	5,334	8.89	7,600
27	20	26,666	9,333	50,000	63,000	3,667	5.82	7,900
28	35	25,000	20,000	123,100	155,500	12,400	7.97	17,050
29	83	166,667	47,667	1,050,666	1,200,000	101,667	8.47	130,000
30	75	160,000	51,000	282,000	360,000	27,000	7.50	45,600
31	23	50,000	10,000	46,000	80,000	24,000	30.00	11,000
32	11	52,000	5,000	100,000	150,000	45,000	30.00	18,120
33	15	18,000	5,000	42,500	50,000	7,500	5.00	6,080
34	35	50,000	15,000	120,000	138,500	3,500	2.53	16,850
35	15	10,000	6,700	12,000	40,000	21,300	53.25	4,600
36	30	18,000	14,500	38,200	77,000	24,300	31.56	8,730
37	18	53,333	10,108	53,320	80,520	17,092	21.21	11,252
38	10	26,667	5,617	81,864	96,000	8,519	8.87	11,200
39	25	75,000	10,800	39,200	60,000	10,000	16.67	10,500

LUMBER.

1	45	\$10,000	\$10,000	\$25,000	\$85,000	\$50,000	58.82	\$9,100
2	38	20,000	15,000	25,000	60,000	20,000	33.33	7,200
3	27	20,000	8,000	14,000	28,000	6,000	21.43	4,000
4	20	12,000	6,000	5,000	14,000	3,000	21.43	2,120
5	75	75,000	20,000	98,000	152,600	34,600	22.67	19,760
6	30	50,000	10,000	21,000	35,000	4,000	11.43	6,500
7	30	2,000	5,000	12,500	20,000	2,500	12.50	2,120
8	25	20,000	10,000	15,500	32,000	6,500	20.31	4,400
9	25	25,000	12,550	61,400	83,100	9,150	11.01	9,810
10	100	50,000	39,000	90,000	150,000	21,000	14.00	18,000
11	25	20,000	12,187	30,000	50,000	7,813	15.63	6,200
12	75	30,000	25,000	645,000	685,000	15,000	2.20	70,300
13	55	70,282	17,180	425,000	510,000	67,820	13.30	55,217
14	42	20,000	17,000	475,000	580,000	88,000	15.17	59,200
15	23	8,000	10,000	120,000	145,000	15,000	10.34	14,980
16	20	25,000	8,000	10,000	22,000	4,000	18.19	3,700
17	14	3,000	5,632	5,100	13,332	2,600	19.50	1,513
18	40	64,183	12,174	32,188	50,780	6,418	12.64	8,929
19	24	1,000	5,000	31,400	40,000	3,600	9.00	4,060
20	20	8,000	5,000	17,500	30,600	8,100	26.47	3,540
21	37	70,000	18,000	103,000	151,000	30,000	19.22	19,300
22	10	22,000	6,570	8,774	23,328	7,984	34.22	3,653
23	23	55,000	8,000	30,000	40,750	2,750	6.75	7,375
24	50	10,000	8,000	12,600	26,000	5,400	20.77	3,200
25	60	40,000	20,000	55,000	90,000	15,000	16.67	11,400

PROFITS AND EARNINGS.

Leather—Continued.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product.....	Average yearly product per employe.....	Loss per employe.....
\$6,100	58.83	20.00	11.50	10.17	\$1,500	
-511	69.55	20.56	10.50	-1.61	1,880	
-500	88.00	15.20	17.20	-1.40	3,125	
9,229	78.97	4.35	11.45	5.23	9,849	
-5,323	83.17	9.90	11.95	-4.42	6,188	
14,000	73.33	12.00	12.80	1.87	3,969	
-15,000	81.23	8.16	13.67	-3.06	6,125	
-1,400	76.92	7.69	15.77	-1.88	7,429	
-12,800	75.00	16.67	16.60	-4.27	3,529	
10,778	77.74	6.67	12.00	3.58	6,522	
-14,900	72.73	21.93	10.76	5.13	1,763	
8,000	71.43	11.90	12.66	3.81	3,750	
41,500	62.22	7.33	12.00	18.44	5,625	
-10,100	78.26	15.22	10.91	-4.39	2,949	
3,084	74.67	8.89	12.40	4.06	5,000	
400	76.92	10.00	12.77	.31	4,483	
8,700	70.95	12.16	11.01	5.88	4,353	
-1,600	85.71	5.00	10.43	-1.14	10,769	
-2,266	80.00	11.11	12.67	-3.78	4,000	
-4,233	79.37	14.81	12.54	-6.72	3,150	
-4,650	79.16	12.86	10.96	-3.99	4,443	
-28,333	47.56	3.97	10.83	-2.36	14,458	
-18,600	78.33	14.17	12.67	-5.17	4,800	
13,000	57.50	12.50	13.75	16.25	3,478	
26,880	66.67	3.33	12.08	17.92	13,636	
-3,590	85.00	10.00	12.16	-7.16	3,333	
-13,350	88.64	10.83	12.17	-9.64	3,957	
16,700	30.00	16.75	11.50	41.75	2,667	
15,520	49.61	18.83	11.40	20.16	2,567	
5,840	66.22	12.55	13.97	7.25	4,473	
-2,681	85.28	5.85	11.67	-2.79	9,600	
300	65.33	18.00	17.50	-1.83	2,400	

LUMBER.

240,900	29.41	11.76	10.71	43.12	\$1,889
12,800	41.67	28.00	12.00	21.33	1,579
2,000	50.00	28.57	14.29	7.14	1,037
880	85.71	42.86	15.14	6.29	700
14,840	64.22	13.11	12.95	9.72	2,035
-2,500	60.00	28.57	18.57	-7.14	1,167
380	62.50	25.00	10.60	1.90	667
2,100	48.44	31.22	13.75	6.57	1,280
-660	73.89	15.11	11.81	-7.79	3,324
3,000	60.00	26.00	12.00	2.00	1,500
1,613	60.00	24.37	12.40	3.23	2,000
-55,300	94.16	3.65	10.26	-8.07	9,133
12,603	83.33	3.37	10.83	2.47	9,273
28,800	81.90	2.93	10.21	4.97	13,810
20	82.76	6.90	10.33	.01	6,904
300	45.45	36.36	16.82	1.36	1,100
1,087	38.26	42.24	11.35	8.15	952
-2,511	63.39	23.97	17.58	-4.94	1,270
-460	78.50	12.50	10.15	-1.15	1,667
4,560	57.19	16.34	11.57	14.90	1,590
10,700	68.21	11.92	12.78	7.09	4,081
4,331	37.61	23.15	15.66	18.57	2,333
-4,025	73.62	19.63	18.10	-11.36	1,772
2,200	48.48	30.77	12.31	9.46	520
3,690	61.11	22.22	12.67	4.00	1,500

Lumber—Continued.

Estimated interest and expenses.....	Percentage of gross profit of value of product.....	Gross profit or loss.....	Value of product.....	Stock used....	Wages paid during the year.....	Capital invested.....	Average number of employees.....	Number of establishment...
\$7,800	17.50	\$10,500	\$60,000	\$37,500	\$12,000	\$30,000	100	26
11,100	26.51	19,885	75,000	35,000	20,115	60,000	43	27
4,000	12.00	3,000	25,000	12,000	10,000	25,000	18	28
4,300	10.00	4,000	40,000	30,000	6,000	5,000	41	29
3,300	12.50	3,000	24,000	16,000	5,000	15,000	20	30
17,500	30.91	17,000	55,000	26,000	12,000	200,000	82	31
2,900	22.50	4,500	20,000	10,000	5,500	15,000	11	32
2,680	16.00	4,000	25,000	15,000	6,000	3,000	40	33
6,290	6.45	4,000	62,000	50,000	8,000	1,500	25	34
4,100	17.14	6,000	35,000	20,000	9,000	10,000	15	35
18,440	25.60	32,000	125,000	75,000	18,000	99,000	55	36
2,180	8.50	1,700	20,000	13,300	5,000	3,000	12	37
41,000	7.57	17,100	230,000	191,590	21,000	300,000	60	38
22,600	20.85	34,615	166,000	118,500	12,885	100,000	40	39
76,000	24.22	115,000	475,000	315,000	45,000	475,000	115	40
36,500	16.33	40,000	245,000	184,000	21,000	200,000	65	41
6,600	8.33	5,000	60,000	50,000	5,000	10,000	17	42
3,780	24.08	6,500	27,000	15,500	5,000	18,000	32	43
4,200	13.33	4,800	36,000	23,700	7,500	10,000	40	44
2,765	22.40	4,850	21,650	9,000	7,800	10,000	25	45
4,960	19.38	7,750	40,000	27,000	5,250	16,000	30	46

MACHINES AND MACHINERY.

1	60	\$40,000	\$34,840	\$30,000	\$72,000	\$7,160	9.94	\$9,600
2	38	35,000	20,000	12,000	40,000	8,000	20.00	6,100
3	172	210,000	110,000	460,000	600,000	30,000	5.00	72,600
4	205	100,000	90,000	165,000	300,000	45,000	15.00	36,000
5	45	35,000	15,000	75,000	100,000	10,000	10.00	12,100
6	84	20,000	39,000	20,000	75,000	16,000	21.33	8,700
7	30	5,000	16,800	35,000	60,000	8,200	13.67	6,300
8	30	5,000	14,000	30,000	60,000	16,000	26.67	6,300
9	20	5,000	9,500	30,000	50,000	10,500	21.00	5,300
10	15	700	6,000	600	8,400	1,800	21.43	882
11	45	15,000	25,000	50,000	79,000	4,000	5.06	8,800
12	50	10,000	15,600	50,000	75,000	9,400	12.53	8,100
13	24	22,000	12,000	50,000	72,000	10,000	13.89	8,520
14	15	12,000	7,200	8,400	25,673	10,073	39.24	3,287
15	75	363,000	25,000	50,000	100,000	25,000	25.00	32,080
16	70	105,000	36,000	175,000	240,000	29,000	12.08	30,300
17	40	55,000	23,000	27,000	65,000	15,000	23.08	9,800
18	10	8,000	6,500	3,000	15,000	5,500	36.67	1,980
19	9	5,000	5,304	3,600	13,310	4,406	33.10	1,631
20	165	100,000	95,000	250,000	500,000	155,000	31.00	56,000
21	45	40,000	37,460	55,000	125,000	32,540	26.03	14,900
22	15	25,000	7,000	35,000	75,000	33,000	44.00	9,000
23	30	60,000	19,500	20,000	65,000	25,500	39.23	10,100
24	55	25,000	24,000	16,000	45,000	5,000	11.11	6,000
25	40	25,000	20,000	10,000	40,000	10,000	25.00	5,500
26	16	20,000	7,500	12,000	36,000	16,500	45.83	4,800
27	23	6,000	10,787	12,626	31,868	8,455	26.53	3,547
28	15	9,000	7,325	15,830	29,244	6,089	20.82	3,464
29	12	10,000	6,800	7,000	24,000	10,200	42.50	3,000
30	16	5,000	8,964	4,800	20,000	6,236	31.18	2,300
31	8	3,000	5,000	1,500	12,000	5,500	45.83	1,380
32	8	3,500	5,500	2,000	9,500	2,000	21.05	1,160
33	12	5,000	7,200	25,000	35,000	2,800	8.00	3,800
34	20	20,000	12,000	30,000	50,000	8,000	16.00	6,200
35	25	35,000	14,250	20,340	55,000	20,410	37.11	7,600

Lumber—Continued.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product.....	Average yearly product per employe.....	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe.....	Number of establishments.....
\$2,700	62.50	30.00	13.00	4.50	\$600	\$27	\$120	26
8,785	46.67	26.62	14.80	11.71	1,744	274	468	27
-1,000	48.00	40.00	16.00	-4.00	1,389	-56	656	28
-300	75.00	15.00	10.75	-75	976	-7	146	29
-300	66.67	20.83	13.75	-1.25	1,200	-15	250	30
-500	47.27	21.62	31.81	-91	1,719	-16	375	31
1,600	50.00	27.50	14.50	8.00	1,818	145	500	32
1,320	60.00	34.00	10.72	5.33	625	33	150	33
2,280	80.65	12.90	10.15	-3.69	2,480	-92	320	34
1,900	57.14	25.71	11.71	5.43	2,833	127	600	35
13,560	60.00	14.40	14.75	10.85	2,273	247	327	36
430	66.50	25.00	10.90	2.40	1,667	40	417	37
23,590	83.30	9.13	17.83	-10.26	3,833	383	350	38
12,015	71.39	7.76	13.61	7.24	4,150	300	322	39
39,000	66.32	9.47	16.00	8.21	4,130	330	391	40
3,500	75.10	8.57	14.90	1.43	3,769	54	323	41
-1,600	83.33	8.33	11.00	-2.67	3,529	-94	294	42
2,720	67.41	18.62	14.00	10.07	844	85	155	43
600	65.83	30.83	11.67	1.67	900	15	189	44
2,665	41.57	36.09	12.77	9.64	806	83	312	45
2,790	67.50	13.13	12.40	6.98	1,323	93	175	46

MACHINES AND MACHINERY.

-2,440	41.67	40.00	13.33	-3.33	\$1,200	-441	\$581	1
1,900	30.00	50.00	15.25	4.75	1,053	50	526	2
-2,660	76.67	11.11	12.10	-7.10	3,488	-248	640	3
9,000	55.00	30.00	12.00	3.00	1,463	44	439	4
-2,100	75.00	15.00	12.10	-2.10	2,222	-47	339	5
7,300	26.67	52.00	11.60	9.73	893	87	464	6
1,900	58.33	28.00	10.50	3.17	2,000	63	560	7
9,700	50.00	23.33	10.50	16.17	2,000	323	467	8
5,200	60.00	19.00	10.60	10.40	2,500	268	475	9
918	7.14	71.43	10.50	10.93	560	61	400	10
-4,800	63.29	11.11	11.14	-6.06	1,756	-107	556	11
1,300	66.67	20.80	10.80	1.73	1,500	26	312	12
1,480	69.44	16.67	11.83	2.06	3,000	62	500	13
6,786	32.72	28.05	12.80	26.43	1,712	452	480	14
-7,080	50.00	25.00	32.08	-7.08	1,333	-94	333	15
-1,300	72.92	15.00	12.63	-54	3,429	-19	514	16
5,200	41.54	36.38	15.08	8.00	1,625	130	575	17
3,620	30.00	43.33	13.20	23.47	1,500	352	650	18
2,775	27.05	39.85	12.25	20.85	1,479	308	589	19
10,000	11.11	19.00	11.20	19.80	3,090	608	576	20
17,640	44.00	29.97	11.92	14.11	2,778	392	832	21
24,000	46.67	9.33	12.00	32.00	5,000	1,600	467	22
15,400	30.77	30.00	15.54	23.69	2,167	513	650	23
-1,000	35.56	53.33	13.33	-2.22	818	-18	436	24
4,500	25.00	11.11	13.75	11.25	1,000	113	500	25
1,700	33.33	20.83	13.33	4.72	2,250	196	469	26
4,908	39.65	33.85	11.13	15.40	1,386	213	469	27
2,625	54.13	25.05	11.85	8.98	1,949	175	488	28
7,200	29.17	23.33	12.50	30.00	2,000	600	567	29
9,936	24.00	44.82	11.50	19.68	1,250	246	560	30
4,120	12.50	41.67	11.50	34.33	1,500	515	625	31
840	21.05	57.89	12.21	8.84	1,188	105	688	32
-1,000	71.43	20.57	10.84	-2.86	2,917	-83	600	33
1,800	60.00	24.00	12.40	3.60	2,500	90	600	34
12,610	36.98	25.91	13.82	11.11	2,200	512	570	35

Machines and Machinery—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
36	12	\$9,000	\$5,741	\$24,241	\$37,122	\$7,140	19.23	\$4,252
37	20	30,000	11,200	9,000	30,000	9,800	32.67	4,800
38	29	30,000	15,552	50,000	80,000	14,448	18.06	9,800
39	20	10,800	9,600	7,000	29,000	12,400	42.76	3,548
40	25	20,000	10,000	11,000	25,000	4,000	16.00	3,700
41	82	75,000	36,000	80,000	144,000	28,000	19.44	18,900
42	15	8,000	10,000	20,000	48,000	13,000	30.23	4,780
43	67	70,000	45,000	45,000	145,000	55,000	37.93	18,700
44	55	100,000	37,000	30,000	120,000	53,000	44.17	18,000
45	15	16,000	10,000	9,000	24,000	5,000	20.83	3,360
46	20	12,000	7,500	8,557	20,579	4,522	21.97	2,778
47	12	6,500	5,605	4,750	11,389	1,034	9.08	1,529
48	12	10,000	10,000	12,000	35,000	13,000	37.14	4,100
49	20	10,000	15,000	10,000	28,750	3,750	13.04	3,475
50	370	250,000	156,307	593,926	829,632	79,449	9.58	97,968
51	40	350,000	35,000	45,000	100,000	20,000	20.00	31,000
52	75	20,000	47,500	30,000	90,000	12,500	13.89	10,200
53	8	5,000	5,000	5,000	13,000	3,000	23.07	1,600
54	55	18,000	18,214	76,000	117,000	22,786	19.48	12,780
55	40	12,000	14,431	20,000	40,000	5,569	13.92	4,720
56	16	28,000	8,000	13,300	35,000	13,700	39.14	5,180
57	25	40,000	13,000	10,000	28,000	5,000	17.86	5,200
58	25	50,000	9,300	40,000	65,000	15,700	24.15	9,500
59	300	1,000,000	200,000	200,000	1,000,000	600,000	60.00	160,000
60	125	75,000	67,000	40,784	109,498	1,714	1.57	15,450
61	15	10,000	7,500	3,000	15,000	4,500	30.00	2,100
62	20	20,000	7,000	12,000	20,000	1,000	5.00	3,200
63	80	50,000	33,000	40,000	96,000	23,000	23.96	12,600
64	21	20,000	6,440	8,000	23,000	8,560	37.22	3,500
65	72	60,000	25,428	38,848	102,924	38,648	37.55	13,892
66	30	125,000	15,700	15,534	49,000	17,766	36.26	12,400
67	80	80,000	52,000	120,000	195,000	23,000	11.79	24,300
68	42	80,000	12,000	24,000	50,000	14,000	28.00	9,800
69	13	30,000	6,000	16,000	25,000	3,000	12.00	4,300
70	10	4,500	5,490	14,100	20,300	710	3.50	2,300
71	55	75,000	25,000	30,000	75,000	20,000	26.67	12,000
72	20	40,000	5,000	80,000	100,000	15,000	15.00	12,400
73	30	5,000	10,400	25,600	60,000	24,000	40.00	6,300
74	21	9,000	9,390	25,000	42,000	7,610	18.12	4,740
75	26	10,000	9,600	25,000	46,000	11,400	24.78	5,200
76	38	75,000	13,216	38,927	61,565	9,422	15.30	10,657
77	15	1,000	8,586	18,650	30,736	3,500	11.39	3,134
78	12	15,000	7,005	10,197	35,366	18,164	51.36	4,437
79	10	24,000	5,500	13,500	26,600	7,600	28.57	4,100
80	27	35,000	16,000	25,000	53,000	12,000	22.64	7,400
81	9	2,000	5,400	3,000	10,000	1,600	16.00	1,120
82	11	8,000	6,500	4,000	20,000	9,500	47.50	2,480
83	15	1,000	6,500	4,000	16,000	5,500	34.38	1,660
84	10	7,000	7,500	6,000	14,000	500	3.57	1,820
85	6	30,000	5,477	4,000	16,000	6,523	40.77	3,400
86	15	15,000	6,500	2,000	13,000	4,500	34.62	2,200
87	28	9,000	8,400	3,000	12,000	600	5.00	1,740

PROFITS AND EARNINGS.

Machines and Machinery—Continued

Average yearly product per employee	Percentage of net profit or loss of value of product.	Percentage of interest and expenses of value of pro- duct.....	Percentage of wages paid of value of pro- duct.....	Percentage of stock used of value of pro- duct.....	Net profit or loss.....
\$3,094	7.78	11.45	15.47	65.30	28.88
1,810	16.67	16.00	37.33	30.00	0.00
2,759	5.81	12.25	19.44	22.50	648
1,450	30.52	12.23	33.10	24.14	852
1,000	1.20	14.80	40.00	44.00	300
1,756	6.32	13.13	25.00	55.56	6,100
2,867	19.12	11.12	23.26	46.51	3,220
2,164	26.03	12.90	31.03	31.03	3,300
2,182	29.17	15.00	30.83	25.00	3,000
1,600	6.89	14.00	41.67	37.50	1,640
1,029	8.47	13.50	36.44	41.58	1,744
949	4.35	13.43	49.21	41.71	495
2,917	25.43	11.71	28.57	34.29	8,900
1,438	5.96	12.09	52.17	34.73	275
2,242	2.23	11.81	18.84	71.53	18,519
2,500	11.00	31.00	35.00	45.00	11,000
1,300	2.56	11.33	52.78	33.33	2,300
1,625	10.77	12.31	38.46	38.46	1,400
2,127	8.55	10.92	15.57	64.96	10,000
1,000	2.12	11.80	36.08	50.00	849
2,187	24.34	14.80	22.86	38.00	8,530
1,120	1.71	18.57	46.43	36.71	300
2,600	9.54	14.62	14.31	61.54	6,200
3,393	44.00	16.00	20.00	20.00	40,000
876	12.54	14.11	61.19	37.25	13,736
1,000	16.00	14.00	50.00	20.00	2,400
1,000	11.00	16.00	35.00	60.00	2,200
1,200	10.83	13.13	34.38	41.67	10,400
1,095	23.00	15.22	28.00	34.78	5,060
1,430	24.05	13.50	24.70	37.74	24,756
1,633	10.96	23.31	32.04	31.70	5,366
2,438	1.67	12.46	26.67	61.54	1,300
1,190	8.40	19.60	24.00	48.00	4,200
1,923	5.20	17.20	34.00	61.00	1,300
2,030	7.83	11.33	27.04	69.46	1,500
1,364	10.67	16.00	33.33	40.00	8,000
5,000	2.60	12.40	5.00	80.00	2,640
2,000	29.50	10.50	17.33	42.67	17,700
2,000	6.83	11.29	22.36	59.52	2,870
1,769	13.48	11.30	20.87	54.35	6,200
1,620	2.01	17.31	21.47	63.23	1,235
2,149	1.19	10.20	17.93	60.63	366
2,947	38.81	12.55	19.61	28.83	13,727
2,600	13.16	15.41	20.68	50.75	3,500
1,963	8.68	13.96	30.19	47.17	4,600
1,111	4.80	11.20	54.00	30.00	480
1,818	35.10	12.46	32.50	20.00	7,020
1,067	24.00	10.38	40.63	25.00	3,840
1,400	9.43	13.00	53.57	42.86	1,320
2,607	19.52	21.25	34.23	25.00	3,123
867	17.69	16.92	50.00	15.38	2,300
429	9.50	14.50	70.00	25.00	1,140

MALT.

Number of es- tablishment..	Average num- ber of em- ployés	Capital invest- ed	Wages paid during the year	Stock used	Value of pro- duct	Gross profit or loss	Percentage of gross profit of value of pro- duct	Estimated in- terest and ex- penses
1	40	\$200,000	\$19,200	\$250,000	\$305,000	\$35,800	11.74	\$12,500
2	32	190,000	19,519	327,429	400,000	53,052	13.26	51,400
3	20	50,000	8,000	210,000	250,000	32,000	12.80	28,000
4	24	120,000	11,000	110,000	140,000	19,000	13.57	21,200
5	35	80,000	14,000	200,000	225,000	11,000	4.89	27,300
6	12	30,000	5,400	91,000	119,600	23,200	19.40	13,760
7	10	30,000	5,000	15,000	27,000	7,000	25.93	4,500
8	16	15,000	5,130	14,600	32,700	12,970	39.66	4,170
9	10	100,000	6,600	193,400	225,000	20,000	8.89	28,500

METALS AND METALLIC GOODS.

1	40	\$45,000	\$20,000	\$25,000	\$60,000	\$15,000	25.00	\$8,700
2	25	30,000	11,000	12,000	36,000	13,000	36.11	5,400
3	45	30,000	10,400	20,000	45,000	14,600	32.44	6,300
4	40	75,000	19,800	21,000	58,000	17,200	29.66	10,300
5	16	30,000	7,972	6,055	15,825	1,798	11.36	3,383
6	35	25,000	20,475	20,000	45,000	4,525	10.06	6,000
7	225	200,000	140,000	430,000	600,000	30,000	5.00	72,000
8	430	250,000	163,120	309,736	531,182	58,326	10.98	68,118
9	150	80,000	72,657	195,000	327,000	59,343	18.15	37,500
10	240	400,000	95,000	180,000	300,000	25,000	8.33	54,000
11	75	60,000	48,754	149,181	206,536	8,601	4.16	24,254
12	126	25,000	55,000	75,000	140,000	10,000	7.14	15,500
13	90	15,000	45,000	65,000	130,000	20,000	15.38	13,900
14	35	45,000	18,500	42,600	80,000	18,900	23.63	10,700
15	25	20,000	15,600	30,000	60,000	14,400	24.00	7,200
16	30	20,000	15,000	33,000	52,000	4,000	7.69	6,400
17	20	20,000	11,000	16,700	38,600	10,900	28.24	5,060
18	15	3,500	7,000	22,000	35,000	6,000	17.14	3,710
19	24	10,000	9,000	11,000	25,000	5,000	20.00	3,100
20	12	4,000	5,750	6,500	14,000	1,750	12.50	1,640
21	50	53,000	32,396	136,119	184,000	15,485	8.42	21,580
22	69	10,000	35,066	45,313	103,990	23,611	22.71	10,999
23	75	234,217	34,580	32,028	86,253	19,645	22.78	22,678
24	80	100,000	37,700	45,240	87,528	4,588	5.24	14,753
25	67	45,000	28,000	41,500	78,000	8,500	10.90	10,500
26	90	25,000	30,000	150,000	250,000	70,000	28.00	26,500
27	40	50,000	18,000	60,000	105,000	27,000	25.71	13,500
28	6	5,000	5,000	4,000	12,000	3,000	25.00	1,500
29	732	685,000	303,521	821,027	1,350,470	225,922	16.73	176,147
30	33	7,500	9,960	10,352	32,674	12,362	37.83	3,717
31	25	25,000	10,500	15,000	30,000	4,500	15.00	4,500
32	8	20,000	5,000	75,000	100,000	20,000	20.00	11,200
33	10	20,000	6,170	21,810	26,470	—1,510	—5.70	3,347
34	131	150,000	62,028	155,230	355,770	138,512	38.93	44,577
35	25	60,000	8,000	17,700	33,500	7,800	23.28	6,350
36	11	3,000	5,400	4,000	15,000	5,600	37.33	1,680
37	70	35,000	50,000	103,000	190,000	37,000	19.47	21,100
38	50	40,000	24,000	75,000	150,000	51,000	34.00	17,400
39	20	10,000	14,500	35,000	60,000	10,500	17.50	6,600
40	23	12,000	12,480	80,000	108,000	15,520	14.37	11,520
41	30	20,000	20,355	60,000	90,000	9,655	10.73	10,200
42	8	1,000	6,200	6,000	14,000	1,800	12.86	1,460
43	20	20,000	7,500	10,150	20,250	2,600	12.84	3,225
44	10	5,000	5,919	9,341	23,179	7,919	34.16	2,618
45	16	5,000	10,000	24,500	40,000	5,500	13.75	4,300
46	10	1,500	6,000	4,500	12,500	2,000	16.00	1,340
47	25	10,000	13,000	30,000	50,000	7,000	14.00	5,600
48	10	9,000	6,333	4,500	12,500	1,667	13.34	1,790
49	10	12,000	6,900	33,000	52,000	12,100	23.27	5,920
50	15	20,000	7,800	15,000	50,000	27,200	54.40	6,200

MALT.

Number of establishments	Average yearly earnings of each employe	Average yearly net profit or loss per employe	Average yearly product per employe	Percentage of net profit or loss of value of product	Percentage of interest and expenses of value of product	Percentage of wages paid of value of product	Percentage of stock used of value of product	Net profit or loss
1	3480	168	7,625	-2.20	13.93	6.90	81.97	-36,700
2	610	52	12,500	1.41	12.85	4.89	81.86	1,652
3	400	200	12,500	1.60	11.20	3.20	84.00	4,000
4	458	92	6,833	1.57	15.14	7.86	78.57	-2,200
5	400	466	6,429	7.24	12.13	6.32	88.89	-16,300
6	450	787	9,957	7.89	11.51	4.52	76.09	9,440
7	500	250	2,700	9.26	16.67	18.52	55.56	2,500
8	321	550	2,044	26.91	12.76	15.89	44.65	8,800
9	660	850	22,500	-3.78	12.67	2.98	88.18	-8,500

METALS AND METALLIC GOODS.

1	2500	158	11,500	10.50	14.50	33.33	41.67	36,300
2	440	304	1,440	21.11	15.00	30.56	35.33	7,600
3	231	184	1,000	18.44	14.00	23.11	44.44	8,300
4	495	173	1,450	11.90	17.76	34.14	36.21	6,900
5	498	90	900	-10.02	21.38	50.28	30.26	-1,585
6	585	42	1,200	-3.24	13.33	45.50	44.44	-1,475
7	622	187	2,607	-7.00	12.60	23.33	71.67	12,000
8	379	29	1,235	-1.84	12.82	30.71	58.31	-9,792
9	484	111	2,180	6.06	11.47	22.22	59.63	21,843
10	396	121	1,250	-9.67	18.00	31.67	60.00	-20,000
11	650	200	2,754	-7.58	11.74	23.61	72.23	-15,653
12	437	44	1,111	-9.93	11.07	30.29	53.57	-5,500
13	500	68	1,444	4.69	10.40	34.62	50.00	6,100
14	529	234	2,286	10.25	13.36	23.13	53.25	8,200
15	624	288	2,400	12.00	12.00	36.00	50.00	7,200
16	500	90	1,733	-4.62	12.31	28.85	63.46	-2,400
17	550	292	1,100	15.13	13.11	28.50	43.26	5,840
18	467	153	2,353	6.54	10.60	20.00	62.66	2,290
19	375	79	1,042	7.60	12.40	36.00	44.00	1,900
20	479	9	1,167	79	11.71	41.07	46.43	110
21	648	122	3,680	-3.31	11.73	17.61	73.98	-6,095
22	508	183	1,507	12.13	10.58	33.72	43.57	12,612
23	461	40	1,150	-3.52	26.20	40.00	37.25	3,083
24	471	127	1,094	-11.61	16.80	43.07	51.09	-10,165
25	418	30	1,164	2.56	13.46	35.90	53.21	-2,000
26	333	481	2,778	17.40	10.50	12.00	60.00	43,500
27	450	38	2,625	12.86	12.86	17.14	57.14	13,500
28	833	250	2,000	12.50	12.50	41.67	33.33	1,500
29	415	68	1,845	3.69	13.04	22.48	60.80	49,775
30	302	202	900	26.46	11.38	30.48	31.68	8,645
31	420	a -	1,200	a -	15.00	35.00	50.00	a -
32	625	1,100	12,500	8.80	11.20	5.00	75.00	8,900
33	617	596	2,647	-20.24	14.53	23.27	82.40	-5,357
34	473	717	2,716	26.40	12.53	17.43	63	93,935
35	320	34	1,340	2.54	20.75	23.88	52.83	650
36	491	356	1,364	26.13	11.20	36.00	26.67	3,920
37	714	227	2,714	8.37	11.11	26.32	54.21	15,900
38	480	672	3,000	22.40	11.60	16.00	50.00	33,600
39	725	195	3,000	6.50	11.00	24.17	58.33	3,900
40	543	174	4,626	3.70	10.67	11.56	74.07	4,000
41	678	-18	3,000	-61	11.33	22.61	66.67	-545
42	775	43	1,750	2.43	10.36	44.29	42.86	340
43	375	-31	1,013	-3.09	15.93	37.04	50.12	-625
44	592	530	2,318	22.87	11.29	25.54	42.99	5,301
45	625	75	2,500	3.00	10.75	25.00	61.25	1,200
46	600	66	1,250	5.28	10.72	48.00	36.00	660
47	520	56	2,000	2.80	11.20	26.00	60.00	1,400
48	631	-12	1,250	-96	14.32	50.66	36.00	-123
49	620	618	5,200	11.88	11.36	13.27	63.46	6,180
50	520	1,400	3,333	42.00	12.40	15.60	30.00	21,000

Metals and Metallic Goods—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year	Stock used	Value of pro- duct	Gross profit or loss	Percentage of gross profit of value of pro- duct	Estimated in- terest and ex- penses.....
51	40	\$15,000	\$16,000	\$9,600	\$40,000	\$14,400	36.00	\$4,900
52	8	5,000	5,000	3,000	15,000	7,000	46.67	1,800
53	15	9,000	6,533	4,500	15,133	4,100	27.09	2,053
54	13	15,000	5,200	23,000	46,000	17,800	38.70	5,500
55	40	15,000	13,000	25,000	40,000	2,000	5.00	4,900
56	30	35,000	10,000	8,000	25,000	7,000	28.00	4,600
57	14	20,000	8,400	10,000	25,000	6,600	26.40	3,700
58	125	100,000	45,000	40,000	125,000	40,000	32.00	18,500
59	40	15,000	15,000	35,000	85,000	35,000	41.17	9,400
60	8	15,000	5,700	18,200	30,000	6,100	20.33	3,900
61	18	10,000	9,000	14,000	30,000	7,000	23.33	3,600
62	28	10,000	12,000	40,000	60,000	8,000	13.33	6,600
63	10	2,500	5,000	12,000	20,000	3,000	15.00	2,150
64	279	150,000	125,000	125,000	300,000	50,000	16.67	39,000
65	18	20,000	9,350	20,000	40,000	10,650	26.63	5,200
66	13	6,000	5,200	10,000	24,000	8,800	36.67	2,760
67	130	175,000	60,000	100,000	190,000	30,000	15.79	29,500
68	30	30,000	15,000	60,000	90,000	15,000	16.67	10,800
69	20	50,000	6,000	5,500	28,000	16,500	58.93	5,800
70	22	7,000	11,000	20,000	50,000	19,000	38.00	5,420
71	19	5,000	7,000	15,000	30,000	8,000	26.67	3,300
72	10	30,000	5,200	30,000	50,000	14,800	29.60	6,800
73	12	20,000	6,400	45,000	70,000	18,600	26.57	8,200
74	175	50,000	67,819	150,377	255,791	37,595	14.70	28,579
75	20	15,000	15,000	40,000	75,000	20,000	26.67	8,400
76	350	400,000	129,000	570,000	840,000	141,000	16.79	108,000
77	340	75,000	100,000	300,000	500,000	100,000	20.00	51,500
78	70	50,000	27,000	75,000	200,000	98,000	49.00	23,000
79	20	10,000	8,000	15,000	42,000	19,000	45.24	4,800
80	33	30,000	20,000	42,000	75,000	13,000	17.33	9,300
81	60	20,000	25,000	75,000	125,000	25,000	20.00	13,700
82	15	3,000	6,000	19,000	39,000	4,000	10.26	3,000
83	13	10,000	7,600	25,500	35,500	2,400	6.76	4,150
84	10	5,000	5,000	10,000	25,000	10,000	40.00	2,800
85	50	12,000	18,853	15,000	60,000	26,147	43.58	6,720
86	15	60,000	6,500	5,000	15,000	3,500	23.33	5,100
87	14	2,000	5,800	2,500	10,000	1,700	17.00	1,120
88	18	25,000	10,100	24,075	64,013	29,838	46.61	7,901
89	40	30,000	10,114	15,000	35,000	9,886	28.25	5,300
90	14	8,000	8,100	10,000	25,000	6,900	27.60	2,950
91	8	30,000	7,000	4,000	14,000	3,000	21.43	3,200
92	78	150,000	29,800	276,000	358,000	52,200	14.58	44,800
93	20	40,522	15,054	170,636	226,648	40,958	18.07	25,096
94	17	25,000	8,500	163,000	240,000	63,500	26.46	25,500
95	25	10,000	10,000	85,000	100,000	5,000	5.00	10,600
96	23	25,000	9,265	22,800	63,600	31,535	49.58	7,860
97	36	22,000	10,000	49,000	72,000	13,000	18.06	8,520
98	25	13,000	6,000	10,000	25,000	3,000	12.00	3,250
99	15	12,500	6,750	25,000	35,000	3,250	9.29	4,250
100	19	5,000	5,000	25,000	40,000	10,000	25.00	4,300
101	10	15,000	5,200	15,000	25,000	4,800	19.20	3,400
102	198	225,000	70,000	50,000	200,000	80,000	40.00	33,500
103	28	20,000	9,800	11,500	27,000	5,700	21.11	3,900
104	80	25,000	25,000	21,000	75,000	29,000	38.67	9,000
105	23	16,000	14,332	16,000	40,000	9,668	24.17	4,960
106	45	200,000	24,100	632,000	710,033	53,993	7.60	83,009
107	27	150,000	8,668	126,580	150,000	14,752	9.83	24,000
108	50	300,000	27,000	175,000	240,000	38,000	15.83	42,000
109	21	100,000	12,579	30,750	70,051	26,722	38.15	13,005
110	16	7,000	9,000	4,000	30,000	17,000	56.67	3,420
111	10	5,000	9,000	8,000	24,000	7,000	29.17	2,700
112	23	25,000	15,000	50,000	100,000	35,000	35.00	11,500
113	7	3,000	7,000	3,000	15,000	5,000	33.33	1,680
114	25	38,000	8,500	26,500	40,000	5,000	12.50	6,280
115	40	20,000	18,000	22,000	50,000	10,000	20.00	6,200
116	15	10,000	10,000	10,000	30,000	10,000	33.33	3,600

PROFITS AND EARNINGS.

Metals and Metallic Goods—Continued.

net profit or loss per em- ploye	Average yearly product per employe	Percentage of net profit or loss of value of product ...	Percentage of interest and expense of value of pro- duct	Percentage of wages paid of value of pro- duct	Percentage of stock used of value of pro- duct	Net profit or loss
	\$1.000	28.75	12.25	40.00	32.00	5.500
	1.875	34.67	12.00	33.33	32.00	2.200
	1.000	18.53	13.57	43.17	32.00	2.47
	3.538	26.74	11.96	11.90	32.00	2.80
	1.000	7.25	12.25	32.50	32.00	2.00
	833	9.60	18.40	40.00	32.00	2.00
	1.786	11.60	14.80	33.60	32.00	2.00
	1.000	17.20	14.00	36.00	32.00	2.00
	2.125	30.12	11.06	17.65	41.13	21.500
	3.750	7.33	13.00	19.00	63.67	24.600
						2.500
	1.687	11.33	12.00	30.00	46.67	3.400
	2.143	2.33	11.00	20.00	66.67	1.400
	2.000	4.25	10.75	25.00	60.00	850
	1.075	3.67	13.00	41.67	41.67	11.000
	2.222	11.13	13.00	23.33	50.00	5.450
	1.846	25.17	11.50	31.67	41.67	6.040
	1.462	.28	15.53	31.57	52.63	4.500
	3.000	4.67	12.00	16.67	66.67	4.200
	1.400	33.21	20.71	21.43	19.64	10.700
	2.273	27.16	10.84	23.00	40.00	13.580
	1.579	15.67	11.00	23.33	50.00	4.700
	5.000	16.00	13.60	10.40	60.00	8.000
	5.833	14.88	11.71	9.14	64.29	10.400
	1.462	3.52	11.17	26.51	58.79	9.016
	3.750	15.47	11.20	20.00	54.33	11.800
	2.400	3.93	12.86	15.36	67.21	33.000
	1.667	9.10	10.90	20.00	60.00	45.500
	2.857	37.50	11.50	13.50	37.50	75.000
	2.100	33.41	11.43	19.05	35.71	14.200
	2.273	4.93	11.07	28.67	56.00	3.700
	2.083	9.04	10.96	20.00	60.00	11.300
	1.933	3.17	10.62	20.60	65.52	930
	2.731	4.93	11.69	21.41	71.33	-1.750
	2.500	28.80	11.30	20.00	40.00	7.200
	1.400	32.38	11.30	31.42	25.00	19.427
	1.000	10.67	84.00	43.33	31.33	-1.600
	714	5.80	11.20	58.00	25.00	580
	3.556	31.27	12.34	15.78	37.61	21.937
	875	13.10	15.14	28.90	42.86	4.526
	1.786	15.68	11.92	32.40	40.00	3.920
	1.750	1.43	22.86	50.00	23.57	-200
	4.590	2.07	12.51	8.32	77.09	7.400
	11.332	7.00	11.07	6.64	75.29	15.862
	14.118	15.83	10.63	3.54	70.00	33.000
	4.000	5.60	10.60	10.00	85.00	-5.600
	2.765	37.22	12.36	14.57	33.35	23.675
	2.000	6.22	11.83	13.89	63.36	4.480
	1.000	22.88	13.12	24.00	40.00	5.720
	2.333	12.14	12.14	19.29	71.43	-1.000
	2.105	14.25	10.75	12.50	62.50	5.700
	2.500	5.60	13.60	20.00	60.00	1.400
	1.010	23.25	16.75	35.00	25.00	46.500
	964	4.67	14.41	36.30	42.59	1.800
	933	26.67	12.00	33.33	28.00	20.000
	7.730	11.77	12.40	35.83	40.00	4.708
	15.780	4.09	11.69	33.94	89.00	23.016
	5.550	6.17	16.00	5.78	84.39	-9.248
	4.800	1.67	17.50	11.25	72.92	-4.000
	3.336	19.54	18.57	17.06	43.94	13.717
	1.875	45.27	11.40	30.00	13.33	13.580
	2.400	17.92	11.25	37.50	33.33	4.300
	4.348	23.50	11.50	15.00	50.00	23.500
	2.143	22.13	11.20	46.67	20.00	3.320
	1.600	3.20	13.70	21.25	66.25	-1.280
	1.250	7.60	12.40	36.00	44.00	3.800
	2.000	21.33	12.00	33.33	33.33	6.400

Metals and Metallic Goods—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
117	18	\$25,000	\$8,000	\$30,000	\$50,000	\$12,000	24.00	\$6,500
118	24	6,300	7,440	10,000	19,000	1,560	8.21	2,270
119	9	6,000	9,000	5,000	25,000	11,000	44.00	2,860
120	82	150,000	26,885	43,500	115,500	45,115	39.06	20,550
121	100	100,000	54,000	300,000	400,000	46,000	11.50	46,000
122	10	15,000	5,000	25,000	35,000	5,000	14.29	4,400
123	30	20,000	14,500	19,000	40,000	6,500	16.25	5,200
124	35	16,000	12,483	10,000	45,645	23,162	50.74	5,520
125	125	110,000	60,000	180,000	265,000	25,000	9.43	33,100
126	43	35,000	20,000	90,000	120,000	10,000	8.33	14,100
127	15	9,000	6,000	6,300	15,000	2,700	18.00	2,040
128	48	32,000	18,615	40,000	75,000	16,385	21.85	9,420
129	55	30,000	16,000	10,000	75,000	49,000	65.33	9,300
130	550	426,000	267,000	885,000	1,222,000	70,000	5.73	147,760
131	40	15,000	22,000	35,000	75,000	18,000	24.00	8,400
132	40	20,000	10,500	23,660	35,000	840	2.40	4,700
133	12	20,000	5,000	5,000	15,000	5,000	33.33	2,700
134	12	8,000	5,500	7,400	21,000	8,100	38.57	2,580
135	35	20,000	20,000	16,000	50,000	14,000	28.00	6,200
136	11	18,000	5,000	5,000	13,000	3,000	23.08	2,380
137	20	23,000	7,000	10,000	30,000	13,000	43.33	4,380
138	16	25,000	10,000	5,500	25,000	9,500	38.00	4,000
139	20	20,000	9,600	23,879	43,200	9,721	22.50	5,520
140	20	40,000	12,000	35,000	55,000	8,000	14.55	7,900
141	10	10,000	5,000	20,000	29,000	4,000	13.79	3,500
142	12	5,000	5,200	8,000	16,000	2,800	17.50	1,900
143	60	40,000	27,000	38,000	75,000	10,000	13.33	9,900
144	10	6,000	6,750	3,600	13,450	3,100	23.05	1,705
145	24	1,500	9,000	10,000	22,800	3,800	16.67	2,370
146	75	150,000	39,750	65,196	158,000	53,054	33.58	24,800
147	80	120,000	32,000	57,500	125,000	35,500	28.40	19,700
148	60	50,000	40,623	46,869	103,000	15,508	15.06	13,400
149	75	75,000	25,000	20,000	60,000	15,000	25.00	10,500
150	13	20,000	8,500	12,000	26,000	5,500	21.15	3,800
151	28	12,000	14,218	20,500	38,189	3,471	9.09	4,539
152	12	10,000	7,000	13,000	22,000	2,000	9.09	2,800
153	8	7,000	5,000	3,500	10,000	1,500	15.00	1,420
154	225	150,000	100,000	131,000	300,000	69,000	23.00	39,000
155	60	30,000	19,200	11,500	40,000	9,300	23.25	5,800
156	15	4,000	7,000	36,000	47,200	4,200	8.90	4,960
157	40	10,000	7,800	6,500	19,500	5,200	26.77	2,550
158	200	140,000	115,000	550,000	800,000	135,000	16.88	88,400
159	60	40,000	26,000	57,000	90,000	7,000	7.78	11,400
160	35	30,000	25,000	20,000	60,000	15,000	25.00	7,800
161	25	5,000	9,000	45,000	60,000	6,000	10.00	6,300
162	18	7,500	7,826	7,240	16,678	1,612	9.67	2,118
163	10	12,500	6,000	17,000	42,000	19,000	45.24	4,950
164	20	10,000	7,200	50,000	65,000	7,800	12.00	7,100
165	90	100,000	25,000	350,000	400,000	25,000	6.25	46,000
166	45	40,000	15,000	164,000	190,000	11,000	5.79	21,400
167	60	10,000	25,000	220,000	275,000	30,000	10.91	28,100
168	18	10,000	8,000	90,000	120,000	22,000	18.33	12,600
169	20	15,000	8,490	20,350	145,650	116,810	80.20	15,465
170	60	10,000	30,000	200,000	250,000	20,000	8.00	25,600
171	10	6,000	6,500	5,000	25,000	13,500	54.00	2,860
172	40	20,000	18,000	26,000	50,000	6,000	12.00	6,200
173	40	10,000	16,000	25,000	50,000	9,000	18.00	5,600
174	40	50,000	18,000	41,000	70,000	11,000	15.71	10,000
175	16	8,842	7,127	10,873	27,000	9,000	33.33	3,231
176	40	50,000	14,000	45,000	75,000	16,000	21.33	10,500
177	40	18,000	12,000	20,000	47,500	15,500	32.63	5,830
178	37	25,000	8,500	16,000	32,000	7,500	23.44	4,700
179	538	500,000	265,960	1,028,597	1,235,088	—59,469	—4.81	153,509
180	85	125,000	36,274	174,137	263,908	53,497	20.27	33,891

PROFITS AND EARNINGS.

Metals and Metallic Goods—Continued

plants	Average yearly product per employee	Percentage of net profit or loss of value of product...	Percentage of interest and expenses of value of product	Percentage of wages paid of value of product	Percentage of stock used of value of product	Net long profit of
	\$2,778	11.00	13.00	16.00	60.00	\$3,500
	2,792	-3.78	11.99	39.16	53.63	-718
	2,778	32.56	11.44	38.00	20.00	8,140
	1,409	21.27	17.79	23.28	37.66	24,505
	4,000	a -	11.50	13.50	75.00	
	3,500	1.71	12.57	14.29	71.43	
	1,333	3.25	13.00	35.25	47.50	
	1,304	38.64	12.10	27.35	21.91	
	2,130	-3.06	12.49	22.64	67.92	
	2,791	-3.42	11.75	16.67	75.00	
	1,000	4.40	13.60	40.00	42.00	
	1,563	9.29	12.56	24.82	53.33	
	1,364	32.93	12.40	21.33	13.33	
	2,222	-6.36	12.09	21.85	72.42	
	1,875	12.80	11.20	29.33	46.67	
	875	-11.03	13.43	30.00	67.60	
	1,250	15.33	18.00	33.33	33.33	
	1,750	25.29	12.29	26.19	35.24	
	1,429	15.60	12.40	40.00	32.00	
	1,182	4.77	18.31	23.46	33.46	
	1,500	28.74	14.60	23.33	33.33	
	1,563	22.00	16.00	40.00	22.00	
	2,160	9.72	12.78	23.22	55.27	
	2,750	.18	14.36	21.82	63.63	
	2,900	1.72	12.07	17.24	64.97	
	1,363	5.63	11.88	32.50	50.00	
	1,250	1.30	13.20	36.00	50.67	
	1,315	10.37	12.68	50.19	26.77	
	950	6.27	10.39	39.47	43.86	
	2,107	17.88	15.71	25.16	41.20	
	1,563	12.60	15.76	23.60	46.00	
	1,717	2.14	12.91	39.44	45.50	
	2,000	75.00	17.50	41.67	33.33	
	1,364	6.54	14.62	32.69	46.15	
	1,833	-2.80	11.89	37.23	53.68	
	1,250	-3.60	12.73	31.82	59.09	
	1,333	.80	14.20	50.00	35.00	
	667	10.00	13.00	33.33	43.67	
	3,147	8.75	14.50	48.00	28.75	
	488	-1.61	10.51	14.83	76.27	
	4,000	13.69	13.08	40.00	33.33	
	1,500	5.83	11.06	14.38	68.75	
	1,714	-4.89	13.67	23.89	63.33	
	2,400	12.00	13.00	41.67	33.33	
	927	-1.50	10.50	15.00	75.00	
	4,200	-3.03	12.70	46.92	43.41	
	3,250	33.45	11.79	14.29	40.48	
	4,444	1.08	10.92	11.08	76.92	
	4,222	-5.25	11.50	6.25	87.50	
	4,583	5.47	11.26	7.89	86.32	
	6,667	.69	10.22	9.09	80.00	
	7,283	7.83	10.50	6.67	75.00	
	4,167	69.58	10.62	5.83	13.97	
	2,500	-2.24	10.24	12.00	80.00	
	1,250	42.56	11.44	26.00	20.00	
	1,250	-4.40	12.40	36.00	52.00	
	1,750	6.80	11.20	32.00	50.00	
	1,688	1.43	14.29	25.71	53.57	
	1,875	21.37	11.97	26.40	40.27	
	1,188	7.33	14.00	18.67	60.00	
	865	2.04	12.27	25.26	42.11	
	2,296	8.75	14.60	26.56	50.00	
	3,105	-17.24	12.43	21.53	83.28	
		7.43	12.84	13.71	65.98	

Metals and Metallic Goods—Continued.

Number of es- tablishment...	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
181	600	\$625,000	\$244,800	\$650,000	\$948,015	\$73,215	7.66	\$134,303
182	120	100,000	53,148	78,812	159,000	17,040	10.72	21,900
183	725	600,620	299,846	2,157,608	2,305,724	-61,790	-2.58	275,009
184	200	150,000	70,000	150,925	276,000	55,075	19.95	36,600
185	200	157,000	120,000	369,400	650,000	140,600	22.32	72,000
186	654	800,000	413,157	2,890,494	3,491,010	197,359	5.87	397,101
187	780	600,000	350,518	1,648,639	2,191,420	192,269	8.77	255,142
188	60	100,000	20,000	67,000	190,000	103,000	54.21	25,000
189	75	245,000	9,769	64,693	46,260	-23,211	-61.00	19,323
190	712	800,000	437,165	3,913,118	5,278,700	1,928,417	36.71	675,870
191	175	600,000	82,000	863,375	1,125,000	179,625	15.97	146,500
192	98	200,000	61,854	680,234	965,450	223,302	23.14	108,545
193	225	150,000	41,200	219,000	301,400	41,200	13.67	39,140
194	10	3,000	5,200	2,000	9,000	1,800	20.00	1,000
195	24	10,000	8,000	20,000	40,000	12,000	30.00	4,600
196	32	7,000	8,750	9,000	20,000	2,250	11.25	2,420
197	25	5,000	9,000	12,000	25,000	4,000	16.00	2,800

MUSICAL INSTRUMENTS AND MATERIALS.

1	86	\$50,000	\$30,000	\$60,000	\$120,000	\$30,000	25.00	\$15,000
2	12	11,000	9,670	6,000	21,000	5,350	25.53	2,700
3	80	30,000	45,000	40,000	105,000	20,000	19.05	12,300
4	31	12,000	15,000	35,000	65,000	15,000	23.08	7,220
5	16	3,000	7,657	9,529	20,250	3,000	15.14	2,205
6	22	20,000	11,000	22,000	45,000	12,000	26.67	5,700
7	19	3,000	13,500	12,000	32,000	6,500	20.31	3,380
8	20	8,000	9,200	65,000	90,000	15,800	17.56	9,480
9	90	100,000	50,000	55,000	120,000	15,000	12.50	18,000
10	13	5,000	7,500	3,500	13,000	2,000	15.38	1,000

PAINTS AND OILS.

1	56	\$100,000	\$50,000	\$1,000,000	\$1,200,000	\$160,000	13.33	\$126,000
2	14	60,000	5,000	200,000	300,000	95,000	31.67	33,600
3	15	40,000	7,800	100,000	200,000	92,200	46.10	22,400
4	18	30,000	9,160	145,765	180,000	25,075	13.93	19,900
5	25	30,000	12,000	70,000	100,000	18,000	18.00	11,800
6	30	25,000	18,000	50,000	85,000	17,000	20.00	10,000
7	16	20,000	6,000	52,000	78,000	20,000	25.64	9,000
8	15	20,000	5,000	150,000	200,000	45,000	22.50	21,000
9	25	60,000	12,500	190,000	250,000	47,500	19.00	23,600
10	31	250,000	16,000	416,000	625,000	93,000	17.71	67,500
11	25	100,000	9,000	220,000	325,000	96,000	29.54	38,500
12	48	100,000	31,785	312,500	392,000	47,715	12.17	45,200
13	30	50,000	8,000	450,000	537,000	79,000	14.71	56,700
14	13	75,000	6,000	100,000	115,000	9,000	7.83	16,000
15	15	100,000	6,000	125,000	140,000	9,000	6.43	20,000
16	13	60,000	5,750	77,880	113,900	30,270	26.58	14,990

Metals and Metallic Goods—Continued.

Net profit or loss.....	Percentage of stock used of value of product	Percentage of wages paid of value of product	Percentage of interest and expenses of value of product	Percentage of net profit or loss of value of product....	Average yearly product per employe.....	Average yearly net profit or loss per employe	Average yearly earnings of each employe	Number of establishment..
-\$51,087	67.14	25.29	13.87	-6.31	\$1,613	-\$102	\$408	181
-4,860	49.57	33.43	13.77	-3.06	1,325	-41	443	182
-337,389	90.06	12.52	11.52	-14.08	3,304	-465	414	183
18,475	54.68	25.36	13.26	6.69	1,380	92	350	184
68,600	58.63	19.05	11.43	10.89	3,150	343	600	185
-29,742	82.80	11.83	11.37	-6.01	5,338	-321	632	186
-62,873	75.23	15.99	11.64	-2.87	2,810	-81	449	187
78,000	35.26	10.53	13.16	41.05	3,167	1,300	333	188
-47,536	139.87	20.91	41.78	102.78	617	-634	130	189
1,252,547	62.32	6.96	10.76	19.95	8,818	1,759	614	190
31,125	76.74	7.29	13.20	2.77	6,429	178	469	191
114,817	70.46	6.41	11.24	11.89	9,852	1,172	631	192
2,060	72.66	13.67	12.98	.68	1,340	9	183	193
720	22.22	57.78	12.00	8.00	900	72	520	194
7,400	50.00	20.00	11.50	18.50	1,667	308	333	195
-170	45.00	43.75	12.10	-.85	625	-5	273	196
1,200	48.00	36.00	11.20	4.80	1,000	48	360	197

a Neither profit nor loss.

MUSICAL INSTRUMENTS AND MATERIALS.

\$15,000	50.00	25.00	12.50	12.50	\$3,333	\$417	\$833	1
2,570	28.57	46.05	13.14	12.24	1,750	214	806	2
7,700	38.10	42.86	11.71	7.33	1,813	96	563	3
7,780	53.85	23.08	11.11	11.97	2,097	251	484	4
860	47.05	37.81	10.89	4.25	1,266	54	479	5
6,300	48.89	24.44	12.67	14.00	2,045	286	500	6
3,120	37.50	42.19	10.56	9.75	1,684	16	711	7
6,320	72.22	10.22	10.53	7.02	4,500	316	460	8
-3,000	45.83	41.67	15.00	-2.50	1,500	-38	625	9
400	26.92	57.69	12.31	3.08	1,000	31	577	10

PAINTS AND OILS.

\$24,000	83.33	4.17	10.50	2.00	\$21,429	\$429	\$893	1
61,400	66.67	1.67	11.20	20.47	21,429	4,346	357	2
69,800	50.00	3.90	11.20	31.90	13,333	4,653	520	3
5,275	80.98	5.09	11.00	2.93	10,000	293	500	4
6,200	70.00	12.00	11.80	6.20	4,000	248	480	5
7,000	58.82	21.18	11.76	8.24	2,833	233	600	6
11,000	66.67	7.69	11.54	14.10	4,875	688	375	7
23,800	75.00	2.50	10.60	11.90	13,333	1,587	333	8
18,900	76.00	5.00	11.44	7.56	10,000	756	500	9
25,500	79.24	3.05	12.86	4.86	16,935	823	516	10
57,500	67.69	2.77	11.85	17.69	13,000	2,300	360	11
2,515	79.72	8.11	11.53	.64	8,167	52	662	12
22,300	83.80	1.49	10.56	4.15	17,900	743	267	13
-7,000	86.96	5.22	13.91	-6.09	8,846	-538	462	14
-11,000	89.29	4.29	14.29	-7.86	9,300	-733	400	15
15,280	68.38	5.05	13.16	13.42	8,762	1,175	442	16

STATISTICS OF LABOR.

PAPER.

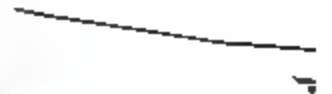
Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
1	52	\$90,000	\$17,558	\$45,000	\$95,000	\$32,442	34.14	\$14,900
2	80	150,000	30,000	165,000	220,000	25,000	11.36	31,000
3	19	20,000	8,000	9,000	20,000	3,000	15.00	3,200
4	26	30,000	11,690	21,115	51,360	18,555	36.13	6,936
5	20	15,000	7,500	15,000	24,000	1,500	6.25	3,300
6	27	25,000	9,000	30,000	50,000	11,000	22.00	6,500
7	17	6,000	6,400	21,000	34,506	7,106	20.59	3,811
8	22	25,000	8,000	15,000	60,080	37,080	61.71	7,508
9	40	50,000	15,000	41,500	108,000	51,500	47.69	13,800
10	35	35,000	12,000	10,000	35,000	13,000	37.14	5,600
11	51	175,000	23,627	90,148	138,875	25,100	18.07	24,388
12	45	40,000	13,750	18,000	68,000	36,250	53.31	9,200
13	42	65,000	13,500	18,000	58,800	27,300	46.43	9,780
14	28	60,000	12,000	32,550	75,000	30,450	40.60	11,100
15	13	25,000	7,000	6,000	17,587	4,587	26.08	3,259
16	20	20,000	8,000	16,000	27,000	3,000	11.11	3,900
17	60	100,000	24,000	157,500	200,000	18,500	9.25	26,000
18	33	50,000	15,000	52,500	85,500	18,000	21.05	11,550
19	26	60,000	8,609	18,610	46,179	18,960	41.06	8,218
20	24	27,000	2,600	16,065	52,584	26,919	51.19	6,878
21	35	100,000	15,190	40,000	71,627	16,437	22.95	13,163
22	35	60,000	13,000	42,500	125,000	69,500	55.60	16,100

PHOTOGRAPHS AND OTHER LIKENESSES.

1	7	\$10,000	\$5,300	\$2,000	\$15,000	\$7,700	51.33	\$2,100
2	8	2,500	6,000	3,000	12,000	3,000	25.00	1,350
3	10	10,000	6,044	2,000	16,000	7,956	49.73	2,200
4	24	65,000	14,310	20,000	75,000	40,690	54.25	11,400
5	10	5,000	9,000	3,000	18,000	6,000	33.33	2,100
6	15	30,000	6,240	3,000	20,000	10,760	53.80	3,800
7	8	12,000	5,050	5,000	16,000	5,950	37.19	2,320
8	8	10,000	5,200	12,000	20,000	2,800	14.00	2,600
9	9	8,000	5,400	12,000	24,000	6,600	27.50	2,880

PRINTING AND PUBLISHING.

1	194	\$200,000	\$200,000	\$175,000	\$500,000	\$125,000	25.00	\$62,000
2	72	200,000	59,275	23,700	170,000	87,025	51.19	29,000
3	196	300,000	127,213	71,344	264,006	65,449	24.75	44,401
4	120	155,000	100,000	200,000	540,000	240,000	44.44	62,700
5	69	50,000	60,000	100,000	180,000	20,000	11.11	31,000
6	40	30,500	27,670	13,000	44,000	3,330	7.57	6,200
7	16	4,000	8,400	14,000	40,000	17,600	44.00	4,240
8	52	25,000	30,000	25,000	75,000	20,000	26.67	9,000
9	45	25,000	34,000	40,000	110,000	36,000	32.73	12,500
10	108	40,000	50,000	50,000	103,000	8,000	7.41	13,200
11	8	54,500	5,760	23,733	33,500	4,007	11.96	6,620
12	6	800	5,000	12,000	25,000	8,000	32.00	2,548
13	14	35,000	7,510	6,700	32,000	17,790	55.59	5,900
14	7	20,000	5,000	10,000	20,000	5,000	25.00	3,200
15	31	10,000	11,500	10,000	35,000	13,500	38.57	4,100
16	25	10,000	12,000	6,000	40,000	22,000	55.00	4,600
17	9	10,000	5,512	2,159	24,500	16,829	68.69	3,050
18	6	10,000	5,400	6,000	30,000	18,600	62.00	3,600
19	17	8,500	5,200	6,550	14,000	2,240	16.00	1,000
20	16	15,000	11,000	17,000	37,000	9,000	24.32	4,600



Printing and Publishing—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year	Stock used	Value of pro- duct	Gross profit or loss	Percentage of gross profit of value of pro- duct	Estimated in- terest and ex- penses.....
21	16	\$5,000	\$8,215	\$4,200	\$14,000	1,585	11.32	\$1,700
22	21	12,000	12,240	21,500	48,000	14,260	29.71	5,520
23	120	3,000	19,000	3,000	25,000	3,000	12.00	2,680
24	50	30,000	22,000	30,000	65,000	13,000	20.00	8,300
25	40	20,000	15,000	12,000	38,000	10,000	26.32	5,000
26	20	15,000	8,750	7,000	20,000	4,250	21.25	2,900
27	32	10,000	15,000	12,000	35,000	8,000	22.86	4,100
28	16	3,000	5,000	4,500	12,000	2,500	20.83	1,380
29	14	15,000	6,500	12,000	22,000	3,500	15.91	3,100
30	38	30,000	16,355	30,000	60,000	13,645	22.74	7,800
31	33	8,000	15,000	5,000	33,000	13,000	39.39	3,780
32	23	20,000	15,000	30,000	60,000	15,000	25.00	7,200
33	20	25,000	12,000	15,000	37,000	10,000	27.03	5,200
34	28	25,000	16,400	24,509	54,861	13,952	25.43	6,986
35	90	40,000	41,000	8,000	57,000	8,000	14.04	8,100
36	85	100,000	52,000	57,000	141,000	32,000	22.70	20,100
37	10	5,000	8,736	15,600	39,336	15,000	38.13	4,234
38	17	17,000	14,040	16,000	35,000	4,960	14.17	4,520
39	15	10,000	7,800	6,000	25,000	11,200	44.80	3,100
40	21	22,500	7,500	9,500	19,560	2,560	13.09	3,306
41	17	7,000	10,000	12,000	29,000	7,000	24.14	3,320
42	44	42,500	24,700	42,000	95,000	28,300	29.79	12,050
43	40	156,000	36,000	60,000	135,000	39,000	28.89	22,860
44	25	40,000	17,500	20,000	50,000	12,500	25.00	7,400
45	25	20,000	11,000	20,000	50,000	19,000	38.00	6,200
46	19	10,000	9,360	15,000	38,000	13,640	35.89	4,400
47	18	10,000	6,000	10,000	20,000	4,000	20.00	2,600
48	66	42,000	19,809	38,500	62,836	4,577	7.28	8,809
49	50	20,000	18,000	15,000	50,000	17,000	34.00	6,200
50	211	175,000	113,500	210,000	350,000	26,500	7.57	45,500
51	24	5,000	10,000	5,000	20,000	5,000	25.00	2,300
52	10	12,000	6,000	15,000	37,000	16,000	43.24	4,420
53	20	2,500	6,700	2,500	9,700	500	5.15	1,120
54	70	35,000	40,000	37,000	100,000	23,000	23.00	12,100
55	90	30,000	30,000	20,000	60,000	10,000	16.67	7,800
56	21	4,500	6,947	4,125	16,875	5,803	34.39	1,958
57	42	20,000	15,000	30,000	60,000	15,000	25.00	7,200
58	60	45,000	21,000	23,000	75,000	31,000	41.33	10,200
59	240	200,000	132,111	198,396	453,064	122,557	27.05	57,906
60	115	35,000	50,000	155,000	240,000	35,000	14.58	26,100
61	20	3,500	6,000	3,500	10,000	500	5.00	1,210
62	12	4,000	5,500	5,000	15,000	4,500	30.00	1,740
63	11	10,000	5,000	6,500	15,000	3,500	23.33	2,100
64	12	8,000	5,750	6,000	15,000	3,250	21.67	1,940
65	11	1,500	6,200	1,800	10,000	2,000	20.00	1,090
66	100	80,000	50,000	80,000	150,000	20,000	13.33	19,800
67	91	75,000	45,000	140,000	220,000	35,000	15.91	26,500
68	100	75,000	41,000	17,000	97,600	39,600	40.57	14,260
69	44	60,000	37,700	66,560	94,700	-9,560	-10.10	13,070
70	60	40,000	39,600	19,500	80,000	20,900	26.13	10,400
71	30	35,000	12,000	30,000	50,000	8,000	16.00	7,100
72	19	30,000	9,728	22,000	35,000	3,272	9.35	5,300
73	15	20,000	10,000	10,000	30,000	10,000	33.33	4,200
74	22	15,000	10,000	40,000	60,000	10,000	16.67	6,900
75	11	10,000	10,000	10,000	30,000	10,000	33.33	3,600
76	22	6,000	10,400	8,000	28,000	9,600	34.29	3,160
77	7	2,000	5,533	1,500	12,000	4,967	41.39	1,320
78	10	5,000	10,000	1,500	25,000	13,500	54.00	2,800
79	10	4,000	6,600	1,000	12,000	4,400	36.67	1,440
80	20	10,000	12,000	5,000	30,000	13,000	43.33	3,600
81	10	10,000	10,000	500	15,000	4,500	30.00	2,100
82	15	8,000	8,750	9,500	25,000	6,750	27.00	2,950
83	10	12,000	5,500	6,000	18,000	6,500	36.11	2,520
84	20	50,000	10,000	10,000	30,000	10,000	33.33	6,000
85	78	100,000	47,100	65,902	163,540	50,538	30.90	22,354

Printing and Publishing—Continued.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product....	Average yearly product per employe.....	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe	Number of establishment..
-\$115	30.00	58.68	12.14	-.82	\$875	-\$37	\$513	21
8,740	44.79	25.50	11.50	18.21	2,286	416	583	22
320	12.00	76.00	10.72	1.28	208	3	158	23
4,700	46.15	33.85	12.77	7.23	1,300	94	440	24
5,000	31.58	42.11	13.16	13.16	950	125	400	25
1,350	35.00	43.75	14.50	6.75	1,000	68	438	26
3,900	34.29	42.86	11.71	11.14	1,094	122	469	27
1,120	37.50	41.67	11.50	9.33	750	70	313	28
400	54.55	29.55	14.09	1.82	1,571	29	464	29
5,845	50.00	27.26	13.00	9.74	1,579	154	430	30
9,220	15.15	45.45	11.45	27.91	1,000	279	455	31
7,800	50.00	25.00	12.00	13.00	2,609	339	652	32
4,800	40.54	32.43	14.05	12.97	1,850	240	600	33
6,966	44.67	29.89	12.73	12.70	1,959	249	586	34
-100	14.04	71.93	14.21	-.18	633	-1	456	35
11,900	40.43	36.88	14.26	8.44	1,659	140	612	36
10,766	39.66	22.21	10.76	27.37	3,934	1,077	874	37
440	45.71	40.11	12.92	1.26	2,059	26	826	38
8,100	24.00	31.20	12.40	32.40	1,667	540	520	39
-746	48.57	38.34	16.90	-3.81	931	-36	357	40
3,680	41.38	34.48	11.45	12.69	1,706	216	588	41
16,250	44.21	26.00	12.68	17.11	2,159	369	561	42
16,140	44.44	26.67	16.93	11.96	3,375	404	900	43
5,100	40.00	35.00	14.80	10.20	2,000	204	700	44
12,800	40.00	22.00	12.40	25.60	2,000	512	440	45
9,240	39.47	24.63	11.58	24.32	2,000	486	493	46
1,400	50.00	30.00	13.00	7.00	1,111	78	333	47
-4,232	61.22	31.50	14.01	-6.73	953	-64	300	48
10,800	30.00	56.00	12.40	21.60	1,000	216	360	49
-19,000	60.00	32.43	13.00	-5.43	1,659	-90	538	50
2,700	25.00	50.00	11.50	13.50	833	113	417	51
11,580	40.54	16.22	11.95	31.30	3,700	1,158	600	52
-620	25.77	69.07	11.55	-6.39	485	-31	335	53
10,900	37.00	40.00	12.10	10.90	1,429	156	571	54
2,200	33.33	50.00	13.00	3.67	667	24	333	55
3,845	24.44	41.17	11.60	22.78	804	183	331	56
7,800	50.00	25.00	12.00	13.00	1,429	186	357	57
20,800	30.67	28.00	13.60	27.73	1,250	347	350	58
65,251	43.79	29.16	12.65	14.40	1,888	272	550	59
8,900	64.58	20.83	10.88	3.71	2,087	77	435	60
-710	35.00	60.00	12.10	-7.10	500	-36	300	61
2,760	33.33	36.67	11.60	18.40	1,250	230	458	62
1,400	43.33	33.33	14.00	9.33	1,364	127	455	63
1,270	40.00	38.33	13.20	8.47	1,250	106	479	64
910	18.00	62.00	10.90	9.10	909	83	564	65
200	53.33	33.33	13.20	.13	1,500	2	500	66
8,500	63.64	20.45	12.05	3.86	2,418	93	495	67
25,340	17.42	42.01	14.61	25.96	976	253	410	68
-22,630	70.29	39.81	13.80	-23.90	2,152	-514	857	69
10,500	24.38	49.50	13.00	13.13	1,333	175	660	70
900	60.00	24.00	14.20	1.80	1,667	30	400	71
-2,028	62.86	27.79	15.14	-5.79	1,842	-107	512	72
5,800	34.33	33.33	14.00	19.33	2,000	387	667	73
3,100	66.67	16.67	11.50	5.17	2,727	141	450	74
6,400	33.33	33.33	12.00	21.33	2,727	582	909	75
6,440	28.57	37.14	11.29	23.00	1,273	293	473	76
3,647	12.50	46.11	11.00	30.39	1,714	521	790	77
10,700	6.00	40.00	11.20	42.80	2,500	1,070	1,000	78
2,900	8.33	55.00	12.00	24.67	1,200	296	600	79
9,400	16.67	40.00	12.00	31.33	1,500	470	600	80
2,400	3.33	66.67	14.00	16.00	1,500	240	1,000	81
3,770	39.00	35.00	11.92	15.08	1,667	251	583	82
3,900	33.33	30.56	14.00	22.11	1,800	398	550	83
4,000	33.33	33.33	20.00	13.33	1,500	200	500	84
28,184	40.30	28.80	13.67	17.23	2,097	361	604	85

Printing and Publishing—Continued.

Number of es- tablishment..	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
86	24	\$35,000	\$15,000	\$21,000	\$60,000	\$24,000	40.00	\$8,100
87	26	10,000	9,000	5,000	18,000	4,000	22.22	2,400
88	19	5,000	10,772	6,000	33,000	16,228	49.18	3,600
89	75	50,000	55,155	30,472	114,747	29,120	25.38	14,475
90	12	6,000	5,800	2,800	12,000	3,400	28.33	1,560
91	42	13,000	26,000	12,000	45,000	7,000	15.56	5,280
92	16	10,000	7,500	4,579	19,378	7,299	37.67	2,538
93	15	10,000	6,500	6,000	20,000	7,500	37.50	2,600
94	18	15,000	6,289	2,913	14,283	5,081	35.57	2,328
95	20	20,000	15,000	20,000	40,000	5,000	12.50	5,200
96	14	10,000	5,300	5,000	18,000	7,700	42.78	2,400
97	20	12,000	10,000	6,000	40,000	24,000	60.00	4,720
98	18	12,000	5,500	2,000	10,200	2,700	26.47	1,740
99	20	15,000	9,500	2,500	15,000	3,000	20.00	2,400
100	15	5,000	5,725	6,900	18,500	5,875	31.76	2,150
101	30	12,000	9,000	15,000	30,000	6,000	20.00	3,720
102	13	10,000	6,000	3,000	12,000	3,000	25.00	1,800
103	12	4,500	8,000	4,500	17,000	4,500	26.47	1,970
104	8	1,000	5,000	1,560	11,880	5,320	44.78	1,248
105	51	25,000	25,000	5,000	35,000	5,000	14.29	5,000
106	35	25,000	15,000	7,000	35,000	13,000	37.14	5,000
107	15	20,000	5,025	7,500	16,000	3,475	21.72	2,800
108	30	12,500	7,050	5,360	14,980	2,570	17.16	2,248
109	11	10,000	5,000	2,000	8,000	1,000	12.50	1,400
110	11	32,000	5,000	2,500	10,000	2,500	25.00	2,920
111	25	20,000	7,500	5,000	20,000	7,500	37.50	3,200
112	65	20,000	10,000	6,000	20,000	4,000	20.00	3,200
113	44	18,000	22,100	5,550	51,000	23,350	45.78	6,180
114	28	5,000	9,600	4,000	16,000	2,400	15.00	1,900
115	29	15,000	13,500	6,950	26,000	5,550	21.35	3,500
116	17	10,000	6,500	10,000	20,000	3,500	17.50	2,600
117	35	30,000	15,623	12,300	51,000	23,077	45.25	6,900
118	24	11,000	5,600	1,125	7,250	525	7.24	1,385
119	15	18,500	8,000	7,000	22,000	7,000	31.82	3,310
120	19	9,000	7,500	5,000	15,000	2,500	16.67	2,040
121	19	3,500	6,000	4,000	10,000	a —	a —	1,210
122	12	20,000	5,400	3,500	11,500	2,600	22.61	2,350
123	31	20,000	16,120	24,000	48,000	7,880	16.42	6,000

a Neither profit nor loss.

RAILROAD AND OTHER CARS AND MATERIALS.

1	120	\$150,000	\$61,363	\$285,950	\$404,002	\$56,689	14.03	\$49,400
2	30	50,000	23,500	206,500	270,000	40,000	14.81	30,000
3	140	75,000	50,000	250,000	250,000	—50,000	—20.00	29,500
4	14	12,000	6,600	21,500	30,000	1,900	6.33	3,720
5	430	200,000	200,000	1,250,000	1,600,000	150,000	9.38	172,000
6	20	40,000	13,000	17,000	30,000	a —	a —	5,400
7	100	60,000	67,500	25,000	92,500	a —	a —	12,850
8	72	51,500	36,435	31,865	70,500	2,200	3.12	10,140
9	20	20,000	13,500	7,500	21,000	a —	a —	3,300
10	40	10,000	17,000	75,000	100,000	8,000	8.00	10,600
11	35	75,000	22,800	5,100	40,000	12,100	30.24	8,500
12	380	300,000	155,000	1,000,000	1,200,000	45,000	3.75	138,000
13	124	50,000	35,000	200,000	300,000	65,000	21.67	33,000
14	51	40,000	28,000	65,000	107,000	14,000	13.08	13,100

a Neither profit nor loss.

Printing and Publishing—Continued.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product.....	Average yearly product per employe.....	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe	Number of establishments...
\$15,900	35.00	25.00	13.50	26.50	\$2,500	\$663	\$625	86
1,600	27.78	50.00	13.33	8.89	692	62	346	87
12,628	18.18	32.64	10.91	33.27	1,737	665	557	88
14,645	26.58	48.97	12.61	12.76	1,530	195	735	89
1,840	23.33	48.33	13.00	■	1,000	163	433	90
1,720	26.67	57.78	11.73	3.83	1,671	41	619	91
4,761	23.63	38.70	13.10	24.67	1,211	298	469	92
4,900	30.00	32.50	13.00	24.50	1,833	327	433	93
2,753	20.39	44.93	16.30	19.27	794	153	349	94
—200	60.00	37.50	13.00	—50	2,000	—10	750	95
5,309	27.78	29.44	13.33	29.44	1,286	379	307	96
19,280	15.00	25.00	11.80	48.20	2,000	964	500	97
950	19.61	53.92	17.06	9.42	567	53	306	■
600	16.67	63.33	16.00	4.00	750	30	475	99
3,725	37.30	30.95	11.62	20.14	1,233	248	383	■
3,380	50.00	50.00	■.40	7.60	1,000	76	300	101
1,500	25.00	50.00	15.00	10.00	923	92	462	102
2,548	26.47	47.00	11.59	14.83	1,417	211	■	103
4,072	13.13	42.00	10.51	34.23	1,485	509	625	104
a —	14.29	71.43	14.29	a —	688	■	490	■
8,006	20.00	42.86	14.29	22.86	1,000	329	429	106
676	46.88	31.41	17.50	4.22	1,067	■	335	107
322	35.79	47.96	15.01	2.15	■	11	235	108
—100	25.00	62.50	17.50	—5.00	727	—36	455	109
—420	25.00	50.00	29.20	—4.20	900	—36	■	110
4,300	25.00	37.50	16.00	21.50	800	177	300	111
800	30.00	50.00	16.00	4.00	306	■	154	112
17,179	10.88	43.33	12.12	33.67	1,169	390	502	113
500	25.00	60.00	11.88	3.13	571	18	343	114
2,050	26.73	51.92	13.46	7.89	897	71	468	115
900	50.00	32.50	13.00	4.50	1,176	53	382	116
16,177	24.12	30.63	13.53	31.72	1,457	462	446	117
—850	15.52	77.24	19.10	—11.85	302	—36	233	118
3,690	31.82	36.36	15.05	16.77	1,467	246	533	119
460	33.33	50.00	13.68	8.67	789	24	395	120
—1,210	40.00	60.00	12.10	—12.10	526	—64	316	121
250	30.43	46.96	20.43	2.17	953	21	450	122
1,880	50.00	33.33	13.50	3.92	1,548	61	520	123

a Neither profit nor loss.

RAILROAD AND OTHER CARS AND MATERIALS.

\$7,280	70.78	15.19	12.23	1.80	\$3,307	\$61	\$511	1
10,000	76.48	8.70	11.11	3.70	9,000	353	783	2
—79,500	100.00	20.00	11.80	—31.80	1,786	—568	357	3
—1,820	71.67	23.00	12.40	—6.07	1,875	—114	413	4
—22,000	78.13	12.50	10.75	—1.34	3,721	—51	465	5
—5,400	56.67	43.33	18.00	—18.00	1,500	—270	650	6
—12,850	27.03	72.97	13.89	—13.89	925	—129	675	7
—7,940	45.20	51.68	14.38	—11.26	979	—110	506	8
—8,300	35.71	64.29	15.71	—15.71	1,050	—165	675	9
—2,600	75.00	17.00	10.60	—2.60	2,500	—65	425	10
3,600	12.75	57.00	21.25	9.00	1,143	103	651	11
—81,000	83.33	12.92	11.50	—7.75	3,158	—245	409	12
32,000	66.67	11.67	11.00	10.67	2,419	258	282	13
900	60.75	26.17	12.21	.84	2,098	18	549	14

SOAPS.

Number of es- tablishment..	Average num- ber of em- ployés.....	Capital invest- ed.....	Wages paid during the year	Stock used....	Value of pro- duct.....	Gross profit or loss.....	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
1	250	\$800,000	\$81,000	\$1,900,000	\$2,100,000	\$119,000	5.67	\$258,000
2	30	60,000	20,000	49,500	90,000	20,500	22.78	12,600
3	12	50,000	6,500	35,000	65,000	23,500	36.15	9,500
4	30	50,000	13,000	110,000	140,000	17,000	12.14	17,000
5	45	50,000	15,000	450,000	500,000	35,000	7.00	53,000
6	43	40,000	20,142	149,000	184,500	15,358	8.32	20,850
7	10	15,000	6,260	18,000	30,000	5,740	19.13	3,900
8	12	10,000	6,000	3,600	12,000	2,400	20.00	1,800
9	9	10,000	5,000	29,000	45,000	11,000	24.44	5,100
10	15	40,000	5,000	42,000	70,000	23,000	32.86	9,400

STONE.

1	50	\$5,000	\$10,300	\$21,500	\$33,300	\$1,500	4.50	\$3,630
2	90	175,000	51,000	155,000	230,000	24,000	10.43	33,500
3	40	30,000	21,000	22,600	47,600	4,000	8.40	6,560
4	50	30,000	34,432	23,000	60,000	2,568	4.28	7,800
5	100	30,000	25,000	28,000	70,000	17,000	24.29	8,800
6	120	25,000	70,000	42,000	150,000	38,000	25.33	16,500
7	60	12,000	19,872	15,000	39,100	4,228	10.81	4,630
8	35	6,000	21,684	12,000	40,421	6,737	16.67	4,402
9	14	4,500	10,046	4,000	18,000	3,954	21.97	2,970
10	27	4,000	19,375	8,600	28,550	575	2.01	3,095
11	25	4,000	17,980	10,000	36,000	8,020	22.28	3,840
12	25	4,000	8,707	8,000	19,377	2,670	13.78	2,178
13	22	3,000	6,800	4,700	12,000	500	4.17	1,380
14	10	1,500	5,750	2,000	9,000	1,250	14.00	990
15	12	1,000	8,320	3,600	16,000	4,080	25.50	1,660
16	40	40,000	20,000	50,000	100,000	30,000	30.00	12,400
17	15	35,000	7,152	68,000	80,000	4,850	6.06	10,100
18	40	15,000	22,000	20,000	56,000	14,000	25.00	6,500
19	24	10,000	12,000	12,000	35,000	11,000	31.43	4,100
20	15	7,000	7,500	12,000	24,000	4,500	18.75	2,820
21	16	6,000	6,860	30,000	51,504	14,644	28.43	5,510
22	18	3,000	5,000	2,400	10,000	2,600	26.00	1,180
23	7	3,000	5,000	1,708	6,837	129	1.89	864
24	12	15,000	10,400	10,200	25,000	4,400	17.60	3,400
25	13	4,000	6,200	6,165	15,000	2,635	17.57	1,740
26	12	4,000	8,640	5,000	20,000	6,360	31.80	2,240
27	7	3,000	5,134	2,000	13,000	5,866	45.12	1,480
28	10	6,000	6,000	10,000	22,000	6,000	27.27	2,560
29	10	5,000	5,000	10,000	18,000	3,000	16.67	2,100
30	65	10,000	13,000	20,000	40,000	7,000	17.50	4,600
31	50	8,000	11,000	15,000	30,000	4,000	13.33	3,480

TOBACCO.

1	173	\$615,000	\$52,000	\$600,000	\$700,000	\$18,000	6.86	\$106,900
2	115	45,000	22,700	69,960	123,070	30,410	24.71	15,007
3	125	80,000	76,500	150,000	350,000	124,500	35.29	39,800
4	160	162,000	50,000	865,302	946,273	30,971	3.27	104,347
5	33	75,000	11,000	160,000	200,000	29,000	14.50	24,500
6	60	50,000	16,000	180,000	240,000	44,000	18.33	27,000
7	375	100,000	125,000	921,719	1,623,732	577,013	35.54	168,373

SOAPS.

Net profit or loss.....	Percentage of stock used of value of product.....	Percentage of wages paid of value of product.....	Percentage of interest and expenses of value of product.....	Percentage of net profit or loss of value of product....	Average yearly product per employe	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe	Number of establishments..
-\$139,000	90.48	3.86	13.20	-6.62	\$8,400	-\$556	\$324	1
7,900	55.00	22.23	14.00	8.78	3,000	263	667	2
14,000	53.85	10.00	14.62	21.54	5,417	1,167	542	3
a -	78.58	9.28	12.11	-	4,607	a -	433	4
-18,800	90.00	3.00	10.00	-3.60	11,111	-600	333	5
5,492	80.76	10.32	11.30	-2.94	4,291	128	468	6
1,840	60.00	20.67	13.00	0.13	3,000	184	626	7
600	30.00	50.00	15.00	5.00	1,000	50	500	8
5,900	64.44	11.11	11.33	14.11	5,000	656	556	9
13,600	60.00	7.14	13.45	10.41	4,657	907	333	10

a Neither profit nor loss.

STONE.

-\$2,130	64.56	39.93	10.90	-6.40	\$666	-43	\$206	1
-9,500	67.39	22.18	14.57	-4.13	2,556	-106	507	2
-2,560	47.48	44.12	13.78	-5.38	1,190	-64	525	3
-5,232	38.33	57.39	13.00	-8.72	1,200	-106	689	4
-3,200	40.00	35.71	12.57	-11.71	700	-82	260	5
21,500	29.00	46.67	11.00	14.33	1,250	179	583	6
-402	38.36	50.82	11.84	-1.03	652	-7	331	7
2,336	29.69	53.65	10.89	5.77	1,155	67	620	8
1,884	22.22	55.91	11.50	10.47	1,296	136	718	9
-2,520	30.12	67.86	10.84	-8.83	1,057	-93	718	10
4,180	27.78	49.94	10.67	11.61	1,440	167	719	11
492	41.29	44.93	11.24	2.54	775	20	348	12
-820	39.17	56.67	11.50	-7.33	545	-40	309	13
260	22.22	63.89	11.00	2.89	900	26	575	14
2,420	22.50	52.00	10.33	15.13	1,333	202	693	15
17,600	50.00	20.00	12.40	17.60	2,500	440	500	16
-5,250	85.00	8.94	12.63	-6.56	5,333	-350	477	17
7,500	35.71	39.29	11.61	13.31	1,400	188	550	18
6,900	34.29	34.29	11.71	19.71	1,453	288	500	19
1,680	50.00	31.25	11.75	7.00	1,600	112	500	20
3,134	58.25	13.32	10.70	17.73	3,219	571	429	21
1,420	24.00	50.00	11.80	14.20	558	79	278	22
-735	24.90	73.13	12.64	-10.75	977	-106	714	23
1,049	40.80	41.60	13.60	4.00	2,083	83	807	24
895	41.10	41.33	11.68	5.97	1,154	69	477	25
4,120	25.00	43.29	11.20	20.68	1,667	343	720	26
4,386	15.38	39.49	11.39	33.74	1,857	627	733	27
3,440	45.45	27.27	11.64	15.64	2,200	344	600	28
900	53.56	27.78	11.67	5.00	1,800	90	500	29
2,400	50.00	32.50	11.50	6.00	615	37	200	30
520	50.00	36.67	11.60	1.73	600	10	220	31

TOBACCO.

-\$38,900	85.71	7.43	15.27	-8.41	\$4,646	-\$340	\$301	1
15,403	56.86	18.44	12.19	12.52	1,070	134	197	2
83,700	42.86	21.86	11.37	23.91	2,800	670	612	3
-73,376	91.44	5.28	11.03	-7.75	5,914	-459	313	4
4,600	80.00	5.50	12.25	2.25	6,061	136	333	5
17,000	75.00	6.67	11.25	7.00	4,000	283	267	6
408,640	56.77	7.70	10.37	25.17	4,330	1,090	333	7

VESSELS, SAILS, ETC.

Estimated interest and expenses.....	Percentage of gross profit of value of product	Gross profit or loss.....	Value of product	Stock used....	Wages paid during the year	Capital invested.....	Average number of employees.....	Number of establishments..
\$14,400	11.11	\$10,000	\$90,000	\$20,000	\$60,000	\$90,000	80	1
13,500	29.33	21,000	75,000	35,000	18,000	100,000	60	2
26,000	15.00	30,000	200,000	150,000	20,000	100,000	40	3
10,200	21.22	20,000	90,000	40,000	30,000	20,000	32	4
2,900	17.39	4,000	23,000	10,000	9,000	10,000	12	5
7,283	26.26	17,548	66,833	38,000	11,285	10,000	21	6
3,300	13.33	4,000	30,000	20,800	5,200	5,000	10	7
6,130	8.66	5,150	59,500	46,000	8,350	3,000	12	8
6,100	21.50	9,000	40,000	13,000	18,000	35,000	30	9
4,700	7.32	3,000	41,000	31,000	7,000	10,000	11	10
8,900	24.19	15,000	62,000	23,000	24,000	45,000	42	11

WOODEN GOODS.

1	50	\$5,000	\$7,500	\$7,500	\$23,000	\$8,000	34.78	\$2,600
2	31	10,000	12,000	15,000	30,000	3,000	10.00	3,600
3	55	6,000	13,000	13,000	30,000	4,000	13.33	3,360
4	23	2,500	8,320	20,000	30,000	1,680	5.60	3,150
5	12	2,400	6,000	2,000	10,000	2,000	20.00	1,144
6	17	15,000	7,000	10,000	30,000	13,000	43.33	3,900
7	60	12,000	18,000	15,000	40,000	7,000	17.50	4,720
8	60	25,000	26,000	30,000	72,000	16,000	22.22	8,700
9	70	10,000	25,000	20,000	60,000	15,000	25.00	6,600
10	33	15,000	12,229	60,000	88,000	15,771	17.92	9,700
11	28	800	9,704	27,000	42,000	5,206	12.61	4,248
12	25	5,000	6,500	13,000	25,000	5,500	22.00	2,800
13	30	20,000	14,690	18,000	41,400	8,710	21.04	5,340
14	160	35,000	52,302	84,695	152,000	15,003	9.87	36,200
15	15	3,000	6,500	17,000	30,000	6,500	21.67	3,180
16	45	22,000	19,500	55,000	120,000	45,500	37.92	13,320
17	65	50,000	24,000	30,000	120,000	66,000	55.00	15,000
18	9	12,000	6,000	12,000	21,000	3,000	14.29	2,820
19	80	70,000	30,000	65,000	120,000	25,000	20.83	16,200
20	25	3,000	9,000	11,000	24,000	4,000	16.67	2,580
21	90	75,000	33,500	36,000	91,000	21,500	23.63	13,600
22	30	10,000	12,495	15,174	35,098	7,429	21.17	4,110
23	50	10,000	26,700	40,000	80,000	13,300	16.63	8,600
24	48	5,538	15,517	58,673	90,437	16,247	17.96	9,376
25	56	40,000	23,000	310,600	350,000	16,400	46.86	37,400
26	37	16,000	14,400	14,400	36,000	7,200	20.00	4,560
27	30	15,000	14,500	54,000	77,800	9,300	11.95	8,680
28	50	25,000	20,600	40,000	66,000	5,400	8.18	8,100
29	27	5,000	17,000	30,000	60,000	13,000	21.67	6,300
30	15	8,000	5,500	6,000	15,000	3,500	23.33	1,960
31	38	8,000	20,000	18,000	50,000	12,000	24.00	5,480
32	30	5,000	16,000	24,000	50,000	10,000	20.00	5,300
33	25	15,000	15,000	13,800	35,000	6,200	17.71	4,400
34	33	40,000	18,000	36,000	65,000	11,000	16.92	8,900
35	525	60,000	170,693	617,585	925,041	136,763	14.78	96,104
36	190	170,000	72,886	95,000	200,000	32,114	16.06	30,200
37	52	20,000	23,400	35,000	80,000	21,600	27.00	9,200
38	40	25,000	18,000	129,500	160,000	12,500	7.81	17,500
39	250	500,000	125,000	250,000	450,000	75,000	16.67	75,000
40	65	50,000	33,330	36,992	82,087	11,765	14.33	11,209
41	40	20,000	12,000	38,000	60,000	10,000	16.67	7,200
42	60	20,000	20,340	30,000	60,000	9,660	16.10	7,200
43	87	15,000	35,600	63,974	121,757	22,183	18.22	13,076
44	16	13,500	6,600	85,000	97,000	5,400	5.57	10,510
45	15	10,000	8,000	3,000	16,000	5,000	31.25	2,200
46	15	5,000	11,388	31,000	45,000	2,612	5.80	4,800
47	20	20,000	7,500	5,500	15,500	2,500	16.13	2,750

VESSELS, SAILS, ETC.

Number of es- tablishment..	Average yearly earnings of each employe	Average yearly net profit or loss per em- ploye	Average yearly product per ploye	Percentage of net profit or loss of value of product...	Percentage of interest and expenses of value of pro- duct	Percentage of wages paid of value of pro- duct	Percentage of stock used of value of pro- duct	Net profit or loss
1	\$750	—\$35	\$1,125	—4.89	16.00	66.67	21.22	\$4,400
2	300	142	1,250	11.33	18.00	24.00	46.67	8,500
3	500	100	5,000	2.00	13.00	10.00	75.00	4,000
4	366	120	1,098	10.89	11.33	33.33	44.44	9,800
5	750	92	1,917	4.78	12.61	39.13	43.48	1,100
6	513	467	3,038	15.36	10.90	16.89	56.86	10,265
7	520	70	3,000	2.33	11.00	17.33	69.33	700
8	696	—82	4,958	—1.65	10.30	14.03	77.31	—980
9	600	97	1,333	7.25	15.25	45.00	32.50	2,900
10	636	—155	3,727	—4.15	11.46	17.07	75.61	—1,700
11	1571	145	1,476	9.84	14.35	38.71	37.10	6,100

WOODEN GOODS.

\$5,400	32.61	32.61	11.30	23.48	\$460	\$108	\$150	1
—600	50.00	40.00	12.00	—2.00	968	—19	387	2
640	43.33	43.33	11.20	2.13	857	18	371	3
—1,470	66.67	27.73	10.50	—4.90	1,304	—43	362	4
856	20.00	60.00	11.44	8.56	833	71	500	5
9,100	33.33	23.33	13.00	30.33	1,765	535	412	6
2,280	37.50	45.00	11.80	5.70	667	38	300	7
7,300	41.67	36.11	12.08	10.14	1,200	121	433	8
8,400	33.33	41.67	11.00	14.00	857	120	357	9
6,071	68.18	13.90	11.02	6.90	2,667	184	371	10
1,048	64.20	23.10	10.11	2.50	1,500	37	347	11
2,700	52.00	26.00	11.20	10.80	1,000	108	260	12
3,370	43.48	35.48	12.90	8.14	1,380	112	490	13
—21,197	55.72	34.41	23.82	—13.95	950	—132	327	14
3,320	56.67	21.67	10.60	11.07	2,000	221	433	15
32,180	45.83	16.25	11.10	26.82	2,667	715	433	16
51,000	25.00	20.00	12.50	42.50	1,846	785	369	17
180	57.14	28.57	13.43	.86	2,333	20	667	18
8,800	54.17	25.00	13.50	7.33	1,500	110	375	19
1,420	45.83	37.50	10.75	5.92	960	57	360	20
7,900	39.56	36.81	14.95	8.68	1,011	88	372	21
3,319	43.23	35.60	11.71	9.46	1,170	111	417	22
4,700	50.00	33.38	10.75	5.88	1,600	94	534	23
6,871	64.88	17.16	10.37	7.59	1,884	143	323	24
—21,000	88.74	6.57	10.69	—6.00	6,250	—375	411	25
2,640	40.00	40.00	12.67	7.33	973	71	389	26
620	69.41	18.64	11.16	80	2,593	21	483	27
—2,700	60.61	31.21	12.27	—4.09	1,320	—54	412	28
6,700	50.00	28.33	10.50	11.17	2,222	248	630	29
1,520	40.00	36.67	13.20	10.13	1,000	101	367	30
6,520	36.00	40.00	10.96	13.04	1,316	172	526	31
4,700	48.00	32.00	10.60	9.40	1,667	157	533	32
1,800	39.43	42.86	12.57	5.14	1,400	72	600	33
2,100	55.38	27.69	13.69	3.23	1,970	64	545	34
40,659	66.76	18.45	10.39	4.40	1,762	78	325	35
1,914	47.50	36.44	15.10	.96	1,053	10	384	36
12,400	43.75	29.25	11.50	15.50	1,538	238	450	37
—5,000	80.94	11.25	10.94	—3.13	4,000	—125	450	38
a	55.56	27.78	16.67	a —	1,800	a —	500	39
556	45.06	40.60	13.66	.68	1,263	9	513	40
2,800	63.33	20.00	12.00	4.67	1,500	70	300	41
2,460	50.00	33.90	12.00	4.10	1,000	41	339	42
9,107	52.54	29.24	10.74	7.48	1,400	105	409	43
—5,110	87.63	6.80	10.84	—5.27	6,063	—319	413	44
—2,800	18.75	50.00	13.75	11.25	1,067	—187	533	45
—2,188	68.89	25.30	10.67	—4.86	3,000	—145	759	46
—250	35.48	48.39	17.74	—1.61	775	—13	375	47

Wooden Goods—Continued.

Number of es- tablishment...	Average num- ber of em- ployes	Capital invest- ed.....	Wages paid during the year	Stock used	Value of pro- duct	Gross profit or loss	Percentage of gross profit of value of pro- duct	Estimated in- terest and ex- penses.....
48	12	\$2,000	\$6,000	\$9,600	\$21,600	\$6,000	27.78	\$2,280
49	30	15,000	15,000	16,600	40,000	8,400	21.00	4,900
50	15	10,000	8,500	19,000	31,000	3,500	11.29	3,700
51	30	8,000	14,200	41,600	64,000	8,200	12.81	6,880
52	25	20,000	11,250	26,200	43,200	5,750	13.31	5,520
53	16	20,000	7,200	16,000	30,000	6,800	22.67	4,200
54	12	800	7,000	10,000	25,000	8,000	32.00	2,548
55	18	2,000	8,650	25,000	36,600	2,950	8.06	3,780
56	13	7,000	5,700	12,900	18,750	150	.80	2,295
57	90	30,000	40,000	60,000	110,000	10,000	9.09	12,800
58	60	16,000	17,500	35,000	60,000	7,500	12.50	6,960
59	18	5,000	7,875	24,600	42,700	10,225	23.95	4,570
60	30	15,000	12,000	24,000	40,000	4,000	10.00	4,900
61	28	40,000	17,500	34,000	60,000	8,500	14.17	8,400
62	17	8,000	7,280	8,000	18,200	2,920	16.04	2,300
63	12	6,000	5,550	10,000	16,000	450	2.81	1,960
64	20	20,000	7,800	25,000	35,800	3,000	8.38	4,780
65	20	2,000	12,000	15,500	32,800	5,300	16.16	3,400
66	15	1,000	6,750	12,450	19,700	500	2.54	2,030
67	22	8,000	10,000	25,000	45,000	10,000	22.22	4,980
68	20	6,000	12,480	8,400	33,232	12,352	37.17	3,683
69	45	40,000	28,500	15,000	50,000	6,500	13.00	7,400
70	80	90,000	30,000	40,000	75,000	5,000	6.67	12,900
71	13	6,000	5,200	6,000	15,000	3,800	25.33	1,860
72	15	8,000	5,000	18,000	26,000	3,000	11.54	3,080
73	26	5,000	5,000	10,000	19,000	4,000	21.05	2,200
74	15	10,000	5,000	5,000	12,000	2,000	16.67	1,800
75	20	18,000	10,000	6,000	19,000	3,000	15.79	2,980
76	12	4,500	5,600	9,000	16,500	1,900	11.52	1,920
77	15	20,000	6,483	19,000	28,650	3,167	11.05	4,065
78	15	1,000	8,000	7,000	20,000	5,000	25.00	2,060
79	30	650	11,857	23,600	39,200	3,743	9.55	3,959
80	24	5,000	5,456	13,000	26,940	8,484	31.49	2,994
81	11	4,500	7,700	4,100	14,000	2,200	15.71	1,670
82	26	3,000	15,600	30,000	47,000	1,400	2.98	4,880
83	30	5,000	13,840	23,000	43,000	6,160	14.33	4,600
84	20	2,000	10,400	33,000	50,000	6,600	13.20	5,120
85	40	20,000	15,000	20,000	38,000	3,000	7.89	5,000
86	42	5,000	15,600	31,200	50,000	3,200	6.40	5,300
87	23	700	12,480	27,200	44,200	4,520	10.23	4,462
88	15	2,000	5,000	9,091	20,000	5,909	29.55	2,120
89	16	3,000	5,700	5,000	12,000	1,300	10.83	1,330
90	84	50,000	30,066	100,000	150,000	19,874	13.25	18,000
91	33	25,000	20,080	42,000	65,000	2,920	4.49	8,000
92	18	1,800	5,200	9,000	16,000	1,800	11.25	1,708
93	13	2,000	6,000	10,000	20,000	4,000	20.00	2,120
94	30	8,000	12,000	35,000	52,000	5,000	9.61	5,680
95	15	5,800	6,500	4,000	20,000	9,500	47.50	2,300
96	14	7,000	5,000	17,400	16,400	6,400	39.02	2,060
97	12	7,000	5,400	6,500	13,000	1,100	8.46	1,720
98	14	3,000	5,800	3,000	12,000	3,200	26.67	1,380
99	10	1,000	6,000	10,000	18,000	2,000	11.11	1,860
100	22	5,700	10,400	18,175	30,075	1,500	4.99	3,350
101	25	15,000	9,000	10,000	26,000	7,000	26.92	3,500
102	16	3,000	7,000	21,000	35,000	7,000	20.00	3,680
103	15	40,000	6,000	7,000	14,000	1,000	7.14	3,800
104	175	100,000	30,000	130,000	161,000	1,000	.62	22,100
105	15	3,000	12,000	2,000	30,000	16,000	53.33	3,180

Wooden Goods—Continued.

Net profit or loss	Percentage of stock used of value of product	Percentage of wages paid of value of product	Percentage of interest and expenses of value of product	Percentage of net profit or loss of value of product.....	Average yearly product per employe.....	Average yearly net profit or loss per employe.....	Average yearly earnings of each employe	Number of establishment...
\$3,720	44.44	27.73	10.56	17.24	\$1,800	\$310	\$500	48
3,500	41.50	37.50	12.25	8.75	1,333	117	500	49
—200	61.29	27.42	11.94	— .65	2,067	—13	567	50
1,320	65.00	22.19	10.75	2.06	2,133	44	473	51
230	60.65	26.04	12.78	.53	1,728	9	450	52
2,600	53.33	24.00	14.00	8.67	1,875	163	450	53
5,452	40.00	28.00	10.19	21.81	2,083	454	583	54
—530	68.31	23.63	10.33	—2.27	2,033	—46	481	55
—2,143	68.80	30.40	12.24	—11.44	1,442	—165	438	56
—2,800	54.55	36.36	11.64	—2.55	1,222	—31	444	57
540	58.33	29.17	11.60	.90	1,000	9	292	58
5,655	57.61	18.44	10.70	13.24	2,372	314	438	59
—900	60.00	30.00	12.25	—2.25	1,333	—30	400	60
100	56.67	29.17	14.00	.17	2,143	3	625	61
620	43.96	40.00	12.64	3.41	1,071	36	428	62
—1,510	62.60	34.69	12.25	—9.44	1,333	—125	463	63
—1,780	69.83	21.79	13.35	—4.97	1,790	—86	390	64
1,900	47.26	36.59	10.37	5.79	1,640	95	600	65
—1,530	63.20	34.26	10.30	—7.77	1,313	—102	450	66
5,020	55.56	22.22	11.07	11.16	2,045	228	455	67
8,669	25.28	37.55	11.08	26.09	1,661	438	624	68
—900	30.00	57.00	14.80	—1.80	1,111	—20	633	69
—7,900	53.33	40.00	17.20	—10.53	938	—99	375	70
1,940	40.00	34.67	12.40	12.93	1,154	149	400	71
—80	69.23	19.23	11.85	— .31	1,733	—5	333	72
1,800	52.63	26.33	11.58	9.47	731	69	192	73
200	41.67	46.67	15.00	1.67	800	13	333	74
20	31.58	52.63	15.68	.11	950	1	500	75
—20	54.55	33.94	11.64	.12	1,375	—2	467	76
—898	66.32	22.63	14.18	—3.13	1,910	—60	432	77
2,910	35.00	40.00	10.30	14.70	1,333	196	533	78
—216	60.20	30.25	10.10	— .55	1,307	—7	395	79
5,490	48.26	20.25	11.11	20.38	1,113	228	227	80
530	29.29	55.00	11.93	3.79	1,273	48	700	81
—3,430	63.83	33.19	10.33	—7.40	1,808	—133	600	82
1,560	53.49	32.19	10.70	3.63	1,433	52	461	83
1,480	66.00	20.80	10.24	2.96	2,500	74	520	84
—2,000	52.63	39.47	13.16	—5.26	950	—50	375	85
—2,100	62.40	31.20	10.60	—4.20	1,190	—50	371	86
58	61.54	28.23	10.10	.13	1,922	3	543	87
3,786	45.46	25.00	10.60	18.95	1,333	252	333	88
—80	41.67	47.50	11.50	— .57	750	—5	356	89
1,874	66.71	20.04	12.00	1.25	1,786	22	358	90
—5,080	64.62	30.89	12.31	—7.82	1,970	—154	608	91
92	56.25	32.50	10.68	.58	829	5	289	92
1,880	50.00	30.00	10.60	9.40	1,538	145	462	93
—680	67.31	23.08	10.92	—1.31	1,733	—22	400	94
7,200	20.00	33.50	11.50	35.00	1,333	480	430	95
4,340	30.49	30.49	12.56	26.46	1,171	310	357	96
—620	50.00	41.54	13.23	—4.76	1,083	—51	450	97
1,820	25.00	48.33	11.50	15.17	817	130	414	98
140	55.56	33.33	10.33	.78	1,800	14	600	99
1,850	60.43	34.58	11.14	—6.15	1,367	—84	473	100
3,500	38.46	34.62	13.46	13.46	1,040	140	360	101
3,320	60.00	20.00	10.51	9.49	2,188	207	438	102
—2,800	50.00	42.86	27.14	—20.00	933	—187	400	103
—21,100	80.75	18.63	13.73	—13.11	920	—121	171	104
12,820	66.67	40.00	10.60	42.73	2,000	855	800	105

a—Neither loss nor profit.

WOOLEN GOODS.

Number of es- tablishment..	Average num- ber of em- ployés.....	Capital invest- ed.....	Wages paid during the year.....	Stock used	Value of pro- duct.....	Gross profit or loss	Percentage of gross profit of value of pro- duct.....	Estimated in- terest and ex- penses.....
1	30	\$46,253	\$8,650	\$32,830	\$60,000	\$18,520	30.87	\$8,775
2	26	15,000	7,200	36,035	50,000	6,765	13.53	5,900
3	14	10,000	5,000	51,000	61,500	5,500	8.94	6,750
4	30	45,000	7,700	31,300	45,000	6,000	13.33	7,200
5	80	155,000	21,562	113,430	150,000	15,008	10.01	24,900
6	35	33,000	5,000	31,280	40,000	3,720	9.30	5,980
7	67	150,000	27,417	97,000	150,000	25,583	17.06	24,000
8	30	10,000	7,000	13,600	20,500	— 100	— .49	2,650
9	30	30,000	6,000	54,642	74,000	13,358	18.05	9,200
10	76	100,000	30,000	112,000	150,000	8,000	5.33	21,000
11	64	61,500	19,112	51,150	99,000	28,738	29.03	13,590
12	85	150,000	33,000	127,725	180,000	19,275	10.71	27,000
13	32	35,000	10,000	32,816	49,002	6,186	12.62	7,000
14	95	180,000	33,522	118,500	178,000	25,978	14.59	28,600
15	45	50,000	25,000	100,000	164,000	39,000	23.78	19,400
16	72	34,000	18,000	96,357	115,500	1,143	.99	13,590

SUMMARY, BY INDUSTRIES.

Industries.	Average num- ber of em- ployés.....	Capital invest- ed	Wages paid during the year	Stock used	Value of pro- duct
Agricultural implements.....	6,802	\$10,737,200	\$3,060,618	\$6,461,957	\$12,878,973
Boots and shoes	2,064	1,722,500	771,737	1,756,179	3,118,973
Boxes	2,007	910,526	762,412	2,799,307	4,030,781
Brick	1,874	917,498	620,123	317,601	1,288,835
Brooms and brushes	308	222,000	102,406	229,922	397,000
Buildings	3,704	1,026,150	1,799,715	3,493,869	5,935,850
Carriages and wagons	2,497	2,700,030	1,143,099	1,824,669	3,938,931
Chemical preparations.....	784	995,750	285,370	2,193,748	3,054,266
Cigars.....	1,252	432,066	509,048	815,657	1,725,233
Clocks and watches	1,659	2,018,827	808,974	239,857	1,988,621
Clothing	12,569	7,919,375	4,578,139	15,061,519	22,751,007
Cooking and heating apparatus.....	1,119	1,490,400	592,532	991,113	2,223,880
Cured and packed meats	10,212	10,691,350	3,939,411	81,385,172	94,077,269
Drugs and medicines.....	191	231,000	82,754	376,000	688,000
Flour and meal	1,838	5,551,892	975,151	20,741,856	23,619,098
Food preparations	2,647	2,961,550	1,025,560	11,702,129	14,271,027
Furniture.....	5,951	3,577,600	2,652,286	3,867,677	8,316,355
Leather	1,839	2,921,128	868,615	6,172,412	8,039,394
Lumber.....	1,769	2,335,970	560,343	3,642,052	1,984,140
Machines and machinery.....	3,756	4,543,000	1,927,512	3,795,610	7,630,506
Malt	199	815,000	93,849	1,416,429	1,724,300
Metals and metallic goods.....	14,919	14,415,501	6,804,591	27,199,052	40,833,333
Musical instruments and materials.....	329	242,000	198,527	308,028	631,250
Paints and oils.....	389	1,120,000	207,995	3,659,145	4,740,900
Paper	750	1,228,000	288,424	880,488	1,664,098
Photographs and other likenesses	99	152,500	62,544	62,000	216,000
Printing and publishing	4,660	3,774,300	2,508,523	2,915,297	7,370,846
Railroad and other cars and materials..	1,578	1,133,500	729,698	3,440,415	4,515,002
Soaps	456	1,125,000	177,902	2,786,100	3,236,500
Stone	1,034	509,000	481,152	634,473	1,355,689
Tobacco	1,041	1,127,000	353,200	2,946,981	4,183,075
Vessels, sails, etc.....	401	428,000	210,835	426,800	777,333
Wooden goods.....	4,374	2,301,388	1,754,291	3,868,169	6,689,667
Woolen goods.....	811	1,104,753	264,163	1,099,665	1,586,502
Totals.....	95,912	\$93,381,754	\$41,201,529	\$219,511,348	\$303,882,634

WOOLEN GOODS.

Number of establishments..	Average yearly earnings of each employe	Average yearly net profit or loss per employe.....	Average yearly product per employe.....	Percentage of net profit or loss of value of product....	Percentage of interest and expenses of value of product.....	Percentage of wages paid of value of product.....	Percentage of stock used of value of product.....	Net profit or loss.....
1	277	225	2,000	16.21	14.63	14.42	54.72	\$9,745
2	257	38	1,923	1.73	11.80	14.40	72.67	865
3	257	40	4,993	2.67	16.36	8.13	22.67	-1,250
4	274	116	1,500	6.19	16.00	17.11	69.56	-1,300
5	143	95	1,875	5.65	16.20	14.37	75.62	-9,292
6	49	24	1,143	1.06	14.95	12.50	78.20	-2,300
7	283	92	2,289	13.41	16.00	18.28	64.67	1,383
8	200	130	681	5.62	12.93	31.15	66.34	-2,750
9	395	171	2,467	8.67	12.43	8.11	73.84	-4,158
10	299	297	1,974	15.30	14.00	20.00	74.67	-13,000
11	385	91	1,547	4.29	13.73	19.31	51.67	15,148
12	313	25	2,118	1.66	15.00	18.33	70.96	-7,735
13	353	28	1,531	1.47	14.29	20.41	66.97	-814
14	556	436	1,874	11.95	16.07	18.83	66.57	2,622
15	250	173	3,644	10.78	11.83	15.24	60.98	19,600
16			1,604		11.77	15.58	83.43	-12,447

SUMMARY, BY INDUSTRIES.

Average yearly earnings of each employe	Average yearly net profit or loss per employe ..	Average yearly product per employe.....	Percentage of net profit or loss of value of product ..	Percentage of interest and expenses of value of product	Percentage of wages paid of value of product	Percentage of stock used of value of product.....	Net profit or loss.....	Estimated interest and expenses.....	Percentage of gross profit of value of product.....	Gross profit or loss.....
\$450	\$209	\$1,893	11.06	15.00	23.76	50.17	\$1,424,269	\$1,932,129	26.06	\$2,356,399
374	85	1,511	5.64	13.31	24.74	56.31	175,870	415,247	18.95	591,057
390	9	2,006	2.28	11.36	18.92	69.45	11,322	457,710	11.64	409,032
331	38	688	12.97	14.27	48.12	24.64	167,177	183,934	27.24	351,111
332	33	1,289	2.94	13.36	25.79	57.91	11,652	53,020	16.29	64,672
486	7	1,603	2.22	11.91	30.32	58.80	-12,888	555,154	10.82	642,266
458	166	1,577	10.54	14.11	29.02	46.32	415,268	555,895	24.66	971,163
304	268	3,896	6.87	11.96	9.34	71.83	209,976	365,172	18.83	575,149
407	161	1,378	11.71	11.50	29.51	47.28	202,081	198,447	23.32	400,528
428	48	837	5.75	18.72	58.26	17.27	79,798	259,992	24.47	330,791
904	29	1,810	1.59	12.10	20.12	66.20	361,085	2,750,264	13.68	3,111,349
530	293	1,967	14.77	14.02	26.64	41.57	328,423	311,812	28.79	640,235
396	127	9,212	-1.38	10.68	4.19	86.51	-1,296,522	10,049,208	9.30	8,752,686
433	767	3,602	21.31	12.01	12.03	54.65	146,586	82,660	33.32	239,246
531	431	12,850	-0.36	11.41	4.13	87.82	792,933	2,695,024	8.05	1,902,091
387	23	5,391	1.43	11.25	7.19	82.00	-61,454	1,604,796	10.81	1,543,339
446	126	1,397	9.02	12.58	31.89	46.51	750,100	1,046,292	21.60	1,296,392
472	70	4,372	24	12.18	10.80	76.78	19,160	979,207	12.42	988,367
317	81	2,817	2.87	12.81	11.24	73.07	143,173	638,572	15.68	261,745
513	282	2,632	11.42	13.57	25.26	49.74	871,753	1,635,631	25.00	1,907,381
472	37	8,665	-4.42	12.84	5.44	82.15	-7,308	221,330	12.41	214,022
455	126	2,732	4.61	12.12	16.66	66.61	1,881,427	4,948,263	16.73	6,829,600
603	143	1,919	7.45	12.30	31.45	48.80	47,050	77,645	19.75	124,695
535	855	12,187	7.01	11.42	4.30	77.18	332,470	541,290	18.43	873,760
585	340	2,219	15.33	14.43	17.33	52.91	255,096	240,090	29.76	495,186
632	613	2,182	28.10	14.24	28.96	28.70	60,706	30,750	42.34	91,456
534	211	1,532	13.34	13.07	34.08	39.55	963,483	983,543	26.42	1,947,026
462	111	2,861	3.87	11.51	16.16	76.20	-174,621	519,510	7.64	344,869
390	260	7,094	-3.67	12.09	5.50	86.08	-118,672	301,150	8.42	272,494
465	72	1,311	5.46	12.25	35.49	46.80	73,955	166,109	17.71	240,064
330	381	4,018	9.49	11.02	8.44	70.45	306,966	485,928	21.11	692,891
526	90	1,938	4.67	13.30	27.12	54.91	36,285	103,413	17.97	130,694
401	59	1,529	3.89	12.06	26.22	57.82	260,157	907,050	15.95	1,067,207
326	3	1,956	-14	14.18	16.65	69.31	-2,261	224,935	14.04	227,674
\$430	\$70	\$3,168	2.36	11.84	13.56	72.24	\$7,178,589	\$35,991,168	14.21	\$43,169,757

SUMMARY BY COUNTIES.

Marginal No...	Counties.	Number of es- tablishments.	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used.....	Value of pro- duct.....	Gross profit or loss.....
1	Adams	50	2,079	\$3,111,400	\$859,766	\$3,914,120	\$6,050,594	\$1,276,708
2	Alexander	7	185	332,000	72,500	984,000	1,161,000	104,500
3	Bureau	1	8	13,000	5,000	2,000	14,000	7,000
4	Champaign.....	1	16	10,000	6,000	10,000	20,000	4,000
5	Christian.....	1	10	25,000	5,000	47,000	55,550	3,550
6	Clark	1	20	30,000	6,000	125,523	151,665	20,142
7	Clinton.....	4	103	238,500	38,000	704,600	821,900	79,300
8	Col's.....	5	153	120,253	57,275	224,330	340,000	58,395
9	Cook	1051	61,954	57,382,343	28,943,442	160,769,077	217,580,650	27,868,131
10	DeKalb..	6	478	637,000	214,400	534,500	885,000	136,100
11	DeWitt	1	35	75,000	22,800	5,100	40,000	12,100
12	Edgar	2	34	16,000	15,000	53,000	85,000	17,000
13	Effingham	1	26	15,000	7,200	36,035	50,000	6,763
14	Fayette	1	24	6,300	7,440	10,000	19,000	1,560
15	Franklin	1	14	10,000	5,000	51,000	61,500	5,500
16	Fulton.....	3	215	312,000	67,200	208,300	390,000	114,500
17	Greene.....	3	68	133,000	24,750	113,820	160,670	22,100
18	Grundy	1	125	100,000	48,000	30,000	125,000	47,000
19	Hamilton	1	15	30,000	7,000	77,500	104,000	19,500
20	Hancock	4	134	231,000	42,412	309,630	381,675	29,633
21	Hardin	1	12	3,000	5,000	13,300	20,000	1,700
22	Henderson	1	30	16,000	5,250	27,000	40,000	7,750
23	Henry	5	171	135,900	64,910	95,221	207,135	46,974
24	Iroquois	1	13	75,000	6,000	100,000	115,000	9,000
25	Jackson	1	9	6,000	9,000	5,000	25,000	11,000
26	Jersey	3	44	57,000	22,000	100,600	183,000	60,400
27	Jo Daviess	15	420	1,097,329	138,904	710,434	974,921	125,583
28	Johnson	1	17	10,000	5,000	50,000	60,000	5,000
29	Kane	33	2,370	2,566,827	1,027,300	1,776,499	3,428,983	625,184
30	Kankakee.....	7	189	232,000	68,590	375,757	532,000	87,713
31	Kendall.....	2	467	125,000	189,000	270,000	550,000	91,000
32	Knox	7	323	477,000	118,904	189,158	467,892	159,830
33	Lake	7	155	153,000	58,500	205,500	345,500	81,500
34	LaSalle	26	1,418	1,310,800	639,487	1,508,010	2,756,636	609,139
35	Lawrence	1	24	1,000	5,000	31,400	40,000	3,600
36	Lee	6	231	382,000	131,450	843,837	1,175,551	200,261
37	Livingston.....	2	42	46,000	16,360	101,845	132,958	14,753
38	Logan	4	61	40,000	21,865	26,845	68,000	19,294
39	McDonough	4	171	173,000	54,710	111,860	245,180	78,610
40	McLean	17	417	594,000	159,173	853,625	1,218,150	205,352
41	Macon.....	16	390	575,000	206,234	791,960	1,314,010	315,816
42	Macoupin	7	102	210,000	54,070	560,086	673,697	59,541
43	Madison	23	1,023	1,087,150	427,115	3,771,721	5,250,823	1,051,987
44	Marion	1	120	100,000	53,148	78,812	159,000	17,040
45	Marshall	3	91	92,000	31,612	88,650	176,200	55,938
46	Massac.....	6	321	178,000	91,350	196,100	335,500	48,050
47	Monroe	4	106	144,492	50,386	720,301	817,024	46,337
48	Montgomery.....	3	400	306,500	168,700	1,029,100	1,249,000	51,200
49	Morgan	10	339	362,000	126,000	799,630	1,132,700	107,070
50	Ogle	3	55	89,000	20,957	128,700	185,000	35,343
51	Peoria	57	1,930	1,474,400	703,267	2,766,259	4,206,996	737,470
52	Perry.....	1	26	10,000	9,600	25,000	46,000	11,400
53	Pike	4	84	123,400	32,280	504,980	592,186	54,936
54	Pope	1	12	20,000	5,000	8,000	15,000	2,000
55	Pulaski	5	146	275,000	54,000	126,000	222,000	42,000
56	Randolph.....	8	111	353,000	56,458	1,143,194	1,268,223	68,571
57	Rock Island	38	2,754	3,875,500	1,257,755	3,820,047	6,348,212	1,270,410
58	St. Clair.....	43	4,598	3,953,000	1,433,575	11,654,485	15,275,238	2,182,178
59	Saline.....	1	10	12,000	8,000	83,150	100,265	9,115
60	Sangamon	21	1,747	1,747,620	683,021	2,838,482	3,655,527	134,025

SUMMARY BY COUNTIES.

Marginal No...	Average yearly earnings of each employe	Average yearly net profit or loss per employe.....	Average yearly product per employe.....	Percentage of net profit or loss of value of product....	Percentage of interest and expenses of value of prod.	Percentage of wages paid of value of product.....	Percentage of stock used of value of product.....	Net profit or loss.....	Estimated interest and expenses.....	Percentage of gross profit of value of product.....
1	\$414	\$233	\$2,910	8.02	13.09	14.21	64.69	\$484,965	\$791,743	21.10
2	592	170	6,276	-2.71	11.72	6.24	81.75	-31,520	136,020	9.01
3	625	603	1,750	34.43	15.57	35.71	14.29	4,820	2,180	50.00
4	575	88	1,250	7.00	13.00	30.00	50.00	1,400	2,600	20.00
5	500	-351	5,555	-6.31	12.70	9.00	84.61	-3,505	7,055	6.39
6	300	159	7,583	2.09	11.19	3.96	82.76	3,175	16,967	13.28
7	369	-167	7,978	-2.09	11.74	4.62	85.73	-17,200	96,500	9.65
8	374	112	2,222	5.05	12.12	16.85	65.98	17,180	41,215	17.18
9	446	41	3,350	1.22	11.59	13.30	73.89	2,647,125	25,221,006	12.81
10	449	20	1,851	1.06	14.32	24.23	60.40	9,380	1,6,720	15.38
11	651	103	1,143	9.00	21.25	57.00	12.75	3,600	8,500	39.24
12	441	222	2,500	8.87	11.13	17.65	62.35	7,540	9,460	20.00
13	277	33	1,923	1.73	11.80	14.40	72.07	865	5,900	13.53
14	310	-30	792	-3.78	11.99	39.16	52.63	-718	2,278	8.21
15	357	-89	4,393	-2.03	10.98	8.13	82.93	-1,250	6,750	8.91
16	313	264	1,814	14.56	14.80	17.23	53.41	56,780	57,720	29.36
17	364	-33	2,363	-1.40	15.15	15.40	70.24	-2,247	24,347	13.75
18	384	228	1,000	22.80	14.80	38.40	24.00	28,500	18,500	37.60
19	467	487	6,933	7.02	11.73	6.73	74.52	7,300	12,200	18.75
20	317	-167	2,848	-5.87	13.63	11.11	81.12	-22,395	52,028	7.76
21	417	-40	1,667	-2.40	10.90	25.00	66.50	-480	2,180	8.50
22	175	93	1,313	6.98	12.40	13.13	67.50	2,790	4,960	19.38
23	380	106	1,211	8.74	13.94	31.35	45.98	18,106	28,868	22.68
24	462	-538	8,846	-7.09	13.91	5.22	86.96	-7,000	16,000	7.83
25	889	904	2,778	32.56	11.44	36.00	20.00	8,140	2,860	44.00
26	500	879	4,159	21.14	11.87	12.02	54.97	38,680	21,720	33.01
27	331	-90	2,321	-3.87	16.75	14.25	72.87	-37,749	163,332	12.83
28	294	-94	3,529	-2.67	11.00	8.33	83.33	-1,600	6,600	8.33
29	433	54	1,447	3.74	14.49	29.96	51.81	128,276	496,908	18.23
30	363	109	2,815	3.87	12.62	12.89	70.62	20,587	67,126	16.49
31	405	61	1,178	5.18	11.36	34.36	49.10	28,500	62,500	16.55
32	368	261	1,449	18.04	16.12	25.41	40.43	84,421	75,409	34.16
33	377	244	2,229	10.93	12.66	16.93	59.48	37,770	43,730	23.59
34	451	180	1,944	9.24	12.85	23.20	54.70	254,827	354,312	22.10
35	208	-19	1,667	-1.15	10.15	12.50	78.50	-460	4,060	9.00
36	569	259	5,089	5.09	11.95	11.18	71.78	59,789	140,475	17.04
37	390	-31	3,166	-98	12.08	12.30	75.85	-1,303	16,056	11.10
38	358	165	1,115	14.84	13.53	32.15	39.48	10,090	9,200	28.37
39	320	256	1,434	17.83	14.23	22.31	45.62	43,712	34,898	32.06
40	382	115	2,921	3.93	12.10	13.07	70.03	47,897	157,455	16.86
41	529	384	3,369	11.41	12.62	15.69	60.27	149,915	165,901	24.03
42	530	-200	6,605	-3.03	11.87	8.03	83.14	-20,429	79,970	8.81
43	418	451	5,133	8.79	11.05	8.13	71.83	461,676	590,311	20.03
44	443	-41	1,325	-3.06	13.77	33.43	39.57	-4,860	21,900	10.72
45	347	360	1,936	18.61	13.13	17.94	50.31	32,798	23,140	31.75
46	285	12	1,045	11.39	13.18	27.23	58.45	3,820	44,230	14.32
47	475	415	7,708	5.39	11.06	6.17	88.16	44,033	90,372	5.67
48	422	-230	3,123	-7.37	11.47	13.51	82.39	-92,090	143,290	4.10
49	372	-53	3,046	-1.74	12.10	12.20	77.43	-17,920	124,990	10.37
50	381	209	3,364	6.22	12.89	11.33	69.57	11,503	23,840	19.10
51	355	115	2,125	5.43	12.10	16.72	65.75	228,306	509,164	17.53
52	369	238	1,769	13.48	11.30	20.87	54.35	6,200	5,200	24.78
53	384	-139	7,050	-1.98	11.25	5.45	85.27	-11,697	66,623	9.28
54	417	-58	1,250	-4.67	18.00	33.33	53.33	-700	2,700	13.33
55	370	23	1,521	1.49	17.43	24.32	56.76	3,300	38,700	18.92
56	509	-716	11,425	-6.26	11.67	4.45	90.14	-79,431	148,002	5.41
57	457	146	2,305	6.35	13.66	19.81	60.18	403,059	867,351	20.01
58	313	91	3,322	2.73	11.55	9.42	76.30	417,474	1,764,704	14.20
59	800	-163	10,027	-1.63	10.72	7.93	82.93	-1,632	10,747	9.09
60	391	-193	2,092	-9.20	12.90	18.68	77.65	-336,386	470,410	3.67

Summary by Counties—Continued.

Marginal No...	Counties.	Number of es- tablishments	Average num- ber of em- ployes.....	Capital invest- ed.....	Wages paid during the year.....	Stock used	Value of pro- duct.....	Gross profit or loss.....
61	Schuyler.....	1	45	\$50,000	\$25,000	\$100,000	\$164,000	\$39,000
62	Shelby.....	2	44	62,250	16,890	172,202	218,000	28,908
63	Stephenson.....	10	333	448,700	137,340	597,005	981,589	247,244
64	Tazewell.....	8	416	638,000	172,800	450,000	777,000	154,200
65	Union.....	3	85	10,500	20,000	132,000	167,300	15,300
66	Vermillion.....	9	146	232,500	64,439	305,394	432,685	62,852
67	Warren.....	3	480	577,748	177,705	265,015	513,025	70,305
68	Washington.....	5	100	257,500	48,241	884,950	1,167,000	229,809
69	Wayne.....	1	72	34,000	18,000	96,357	115,500	1,143
70	White.....	4	110	88,000	27,300	191,800	249,650	30,550
71	Whiteside.....	13	456	738,000	205,700	672,000	1,093,187	215,487
72	Will.....	27	2,294	2,596,500	917,631	7,358,262	10,990,370	2,714,477
73	Winnebago.....	36	1,636	2,326,342	692,337	1,542,280	3,007,557	772,940
	Total.....	1666	95,912	\$93,381,754	\$41,201,529	\$219,511,348	\$303,882,634	\$43,169,757

Summary by Counties—Continued.

Marginal No...	Average yearly earnings of each emp. oyr	Average yearly net profit or loss per employee	Average yearly product per empl. oyr	Percentage of net profit or loss of value of product	Percentage of int. and expenses of val. of product	Percentage of wages paid of value of product	Percentage of stock used of value of product	Net profit or loss	Estimated interest and expenses	Percentage of gross profit of value of product
61	556	436	\$3,644	11.95	11.83	15.24	69.98	\$19,600	\$19,400	5.78
62	524	277	4,955	1.55	11.71	7.75	78.99	3,373	25,535	13.26
63	412	367	2,948	12.45	12.74	13.99	69.82	127,163	125,081	25.19
64	413	42	1,868	4.92	14.93	23.24	57.90	58,220	115,980	19.85
65	235	24	1,968	1.23	10.88	11.95	78.90	2,060	17,960	9.15
66	441	39	2,964	1.80	13.23	14.89	70.58	5,633	57,219	14.63
67	370	33	1,069	3.05	16.76	34.64	11	15,663	85,968	13.70
68	482	977	11,670	8.97	11.92	4.13	76.17	97,659	192,150	19.69
69	250	173	1,604	10.78	11.77	15.58	83.43	12,447	19,590	9.99
70	248	8	2,270	.12	12.11	10.94	76.83	305	30,245	12.24
71	451	150	2,397	5.66	14.05	18.82	61.47	61,888	183,599	19.71
72	400	636	4,791	13.28	11.43	8.35	66.95	1,459,650	1,254,827	24.70
73	423	203	1,838	11.06	14.64	23.02	51.28	332,003	440,837	25.70
	430	75	3,168	2.56	11.84	13.56	72.24	7,178,589	35,991,168	14.21

In the table which follows may be found the summarized results of the preceding table, showing the condition of the 34 industries under consideration, as to profit and loss. By this it will be seen that out of the 1,636 establishments only 9 show a gross loss; that is, the value of product in these cases was less than the cost of the material and labor used in its manufacture, aside from the running expense account. A gross profit is shown by 1,657 establishments, or 99 per cent. of the whole, and a net profit by 1,128, or 63 per cent., whereas 530, or 32 per cent. of the whole, indicate a net loss; that is, about one-third of these establishments, after deducting from their gross profits six per cent. on their capital as interest, and ten per cent of the value of their product to cover incidental expenses, find their balances against them.

It does not necessarily follow, however, that this proportion of the larger establishments of the State were actual losers on the year's business, for the reason, that it is entirely possible that many individual establishments may have been conducted on a narrower margin than that allowed for interest and running expenses in these tables. It may be observed, however, as confirmatory of this deduction for Illinois, that the same general result was reached in the Massachusetts tables. In those it was found that 33+ per cent. of their 2,440 establishments, in the 21 industries peculiar to that State, showed a net loss, computing interest and expenses upon the same basis adopted here.

While it is to be expected that a certain number of all commercial ventures will fail of profitable returns, an exceptionally large number of such will be observed in certain industries in this table.

Of those engaged in the manufacture of brooms and brushes 50 per cent. show a net loss, of those in building 57+ per cent., in cured and packed meats 88 per cent., in flour and meal 75+ per cent., in leather 51+ per cent., in railroad and other cars and materials 64+ per cent., and in woolen goods 62+ per cent. Here are seven industries out of the 34 in which one-half or more of those engaged in them fail to clear a net profit over all charges. What exceptional conditions, not entering into these computations, may have governed in these instances it is impossible to indicate.

PROFIT AND LOSS, BY INDUSTRIES.

Industries.	ESTABLISHMENTS.				
	Total.	Making gross profit.	Making gross loss.	Making net profit.	Making net loss.
Agricultural implements.....	74	74	.....	58	16
Boots and shoes	30	30	.....	21	9
Boxes	32	31	1	17	15
Brick.....	51	51	.....	50	1
Brooms and brushes.....	8	8	.....	4	4
Buildings	107	a 107	.....	46	61
Carriages and wagons.....	83	83	.....	b 64	19
Chemical preparations.....	11	11	.....	9	2
Cigars.....	39	39	.....	29	10
Clocks and watches	5	5	.....	3	2
Clothing.....	120	120	.....	86	34
Cooking and heating apparatus.....	20	20	.....	17	3
Cured and packed meats.....	54	54	.....	6	48
Drugs and medicines.....	9	9	.....	8	1
Flour and meal.....	97	a 96	1	24	73
Food preparations.....	56	56	.....	41	15
Furniture.....	118	118	.....	92	26
Leather.....	39	39	.....	19	20
Lumber.....	46	46	.....	32	14
Machines and machinery	87	87	.....	67	20
Malt	9	9	.....	5	4
Metals and metallic goods	197	193	4	a 151	46
Musical instruments and materials.....	10	10	.....	9	1
Paints and oils	16	16	.....	14	2
Paper.....	22	22	.....	17	5
Photographs and other likenesses.....	9	9	.....	9	.....
Printing and publishing.....	123	b 122	1	b 105	18
Railroad and other cars and materials	14	c 13	1	5	9
Soaps.....	10	10	.....	b 7	3
Stone	31	31	.....	21	10
Tobacco.....	7	7	.....	5	2
Vessels, sails, etc.....	11	11	.....	8	3
Wooden goods	105	105	.....	b 73	32
Woolen goods	16	15	1	6	10
Totals	1,666	d 1,657	9	e 1,128	538

a. Including 2 showing neither profit nor loss.

b. Including 1 showing neither profit nor loss.

c. Including 3 showing neither profit nor loss.

d. Including 8 showing neither profit nor loss.

e. Including 6 showing neither profit nor loss.

The table next presented consists of a classification of employés in the various industries, showing the actual and proportionate number of men, women, children and youth employed in each. As an appropriate supplementary feature, a column is introduced from a preceding table, giving the average yearly earnings of each employé in the respective industries.

In one small industry only—the manufacture of malt—the employés are men exclusively, while in 14 others men constitute over 90 per cent. of the employed, and of the whole 95,912 employés in these selected industries, 81.77 per cent. are men.

In six industries no women are employed, and in one only—clothing—there are more women than men. The highest percentages of women are found in the manufactures of clocks and watches, 85.02, clothing 53.54, drugs and medicines 84.56, photographs and other likenesses 84.84, and woolen goods 88.22. For all industries 12.16 per cent. of all employes are women.

Children and youth constitute only 3.07 per cent. of all employes—by far the largest percentage, 87.75, being found in the tobacco factories. In Massachusetts, 4.93 per cent. of the workers are children, 30.13 per cent., more than double our proportion, are women, and 64.94 per cent. are men, as against 81.77 per cent. of men in this State.

CLASSIFICATION OF EMPLOYES, BY INDUSTRIES.

Industries.	EMPLOYEES.				PERCENTAGE.				Average yearly earnings of each employe
	Total.	Men.	Women.	Children and youth.	Men.	Women.	Children and youth.		
Agricultural implements.....	6,802	6,499	24	279	95.55	35	4.10	\$450	
Boots and shoes.....	2,064	1,685	328	41	82.12	15.89	1.99	374	
Boxes.....	2,007	1,659	165	183	82.66	8.22	9.12	390	
Brick.....	1,874	1,789	13	72	95.80	69	6.51	331	
Brooms and brushes.....	908	224	63	22	72.78	20.13	7.14	332	
Buildings.....	3,704	3,670	—	34	99.08	—	.92	476	
Carriages and wagons.....	2,497	2,298	95	166	91.96	1.40	6.65	458	
Chemical preparations.....	784	683	106	15	84.57	13.52	1.91	364	
Cigars.....	1,282	1,010	152	96	80.67	12.14	7.19	407	
Clocks and watches.....	1,659	1,088	581	40	65.57	35.02	2.41	488	
Clothing.....	12,569	4,623	7,483	463	36.78	59.54	3.68	364	
Cooking and heating apparatus.....	1,119	1,080	—	29	97.41	—	2.59	530	
Cured and packed meats.....	10,212	9,518	—	694	93.20	—	6.80	396	
Drugs and medicines.....	191	110	66	15	57.59	34.56	7.85	433	
Flour and meal.....	1,838	1,797	2	39	97.77	11	2.12	531	
Food preparations.....	2,047	1,663	495	489	62.83	18.70	18.47	387	
Furniture.....	5,961	5,365	122	464	90.15	2.05	7.80	446	
Leather.....	1,839	1,570	216	53	85.37	11.75	2.88	472	
Lumber.....	1,769	1,584	4	181	89.54	23	10.23	317	
Machines and machinery.....	3,756	3,647	5	104	97.10	13	2.77	513	
Malt.....	199	199	—	—	100.00	—	—	473	
Metals and metallic goods.....	14,949	13,780	340	829	92.18	2.33	5.49	455	
Musical instruments and materials.....	329	247	1	41	87.24	30	12.46	603	
Paints and oils.....	369	356	21	12	91.52	5.40	3.08	535	
Paper.....	750	632	79	39	84.27	10.53	5.20	385	
Photographs and other likenesses.....	99	63	34	2	63.64	34.34	2.02	633	
Printing and publishing.....	4,660	3,569	651	440	76.59	13.97	9.44	538	
Railroad and other cars and materials.....	1,578	1,554	—	24	98.44	—	1.52	462	
Soaps.....	456	373	23	60	81.80	5.04	13.16	390	
Stone.....	1,044	1,020	—	14	98.65	—	1.35	465	
Tobacco.....	1,041	451	197	393	43.32	18.93	37.75	79	
Vessels, sails, etc.....	401	301	91	9	75.06	22.69	2.25	536	
Wooden goods.....	4,374	3,396	45	333	91.86	1.03	7.61	461	
Woolen goods.....	811	389	310	112	47.97	38.22	13.81	326	
Total.....	95,912	78,430	11,660	5,822	81.77	12.16	6.07	439	

CHAPTER III.

INDUSTRIAL COMPARISON BETWEEN ILLINOIS AND MASSACHUSETTS.

Having completed the presentation for the Industries of Illinois, it may be interesting to compare the results with those obtained in Massachusetts, as shown by the report of the Bureau of Statistics of Labor in that State for 1883. The tables which follow are devoted to that object.

By the first is shown the industries, the number of establishments, and the number of employés covered by the investigation in each State. Twenty-one industries represented by 2,440 establishments were taken in Massachusetts, and 34 industries represented by 1,666 establishments in Illinois. The 2,440 establishments of the former State employed 207,793 hands; the 1,666 establishments of the latter employed 95,912 hands. The whole number of manufacturing establishments in each State is about the same, Illinois having 14,549 and Massachusetts 14,352. Illinois has 1,848 establishments in which \$5,000 or more was paid in wages during the census year, and 1,666 of these were used in the investigation. Massachusetts has 3,663 establishments in which \$5,000 or more was paid in annual wages, and 2,440 were used in the investigation. Thus there appears to be in Massachusetts nearly twice as many large establishments as in Illinois, and not only a greater number but the establishments themselves are more extensive, as is shown by the fact that the average number of employés to each in Illinois is only 57+ while the average for each establishment in Massachusetts is 85+.

**MANUFACTURING ESTABLISHMENTS IN ILLINOIS AND MASSACHUSETTS, PAY-
ING \$5,000 OR MORE EACH IN ANNUAL WAGES, WHICH FORM THE
BASIS OF INVESTIGATION.**

Industries.	NUMBER OF ES- TABLISHMENTS.		NUMBER OF EM- PLOYES.	
	Illinois.	Mass.	Illinois.	Mass.
Agricultural implements	74		6,802	
Boots and shoes	30	460	2,064	37,657
Boxes	32	30	2,007	775
Brick	51	20	1,874	1,135
Brooms and brushes	8		308	
Buildings	107	240	3,704	5,645
Carriages and wagons	83	90	2,497	1,962
Chemical preparations	11		784	
Cigars	39		1,252	
Clocks and watches	5		1,659	
Clothing	120	160	12,569	11,435
Cooking and heating apparatus	20		1,119	
Cotton goods		150		59,684
Cured and packed meats	54		10,212	
Drugs and medicines	9		191	
Flour and meal	97		1,838	
Food preparations	56	70	2,647	2,901
Furniture	118	100	5,951	3,133
Leather	39	160	1,839	6,703
Lumber	46		1,769	
Machines and machinery	87	150	3,756	11,580
Malt	9		199	
Metals and metallic goods	197	270	14,949	18,249
Musical instruments and materials	10	40	329	2,821
Paints and oils	16		389	
Paper	22	70	750	6,354
Photographs and other likenesses	9		99	
Printing and publishing	123	100	4,660	5,227
Railroad and other cars and materials	14		1,578	
Rubber and elastic goods		25		2,644
Soaps	10		456	
Stone	31	40	1,034	1,370
Tobacco	7	30	1,041	905
Vessels, sails, etc.	11		401	
Wooden goods	105	70	4,374	2,534
Woolen goods	16	150	811	22,597
Worsted goods		15		2,482
Totals	1,666	2,440	95,912	207,793

NOTE.—The blank spaces indicate industries not tabulated for that State. In Massachusetts, cured and packed meats and flour and meal are included in food preparations, and cigars are included in tobacco.

For a comparison of the data used for the basis of the work in both States, the following compendium is given for the 1,666 and 2,440 establishments respectively, and will be found sufficiently explicit as to the salient features of both groups. It will be observed that the percentages for Illinois are materially larger in every respect, save one, than those for Massachusetts, and the deductions arrived at should consequently be a correspondingly nearer approach to the exact facts for the State at large.

NUMBER OF MANUFACTURING ESTABLISHMENTS, CAPITAL, ETC., COMPARED.

	Illinois.	Massachusetts.
Total manufacturing establishments in the State.....	14,549	14,352
Number of establishments tabulated.....	1,666	2,410
Per cent. of establishments tabulated of total number...	11+	17+
Amount of capital employed in all establishments.....	\$140,652,066	\$303,806,185
Amount of capital employed in establishments tabulated.....	\$93,351,754	\$161,936,565
Per cent. of capital employed in establishments tabulated.....	66+	53+
Amount of wages paid in all establishments.....	\$57,429,085	\$128,315,362
Amount of wages paid in establishments tabulated.....	\$41,201,529	\$74,700,851
Per cent. of wages paid in establishments tabulated.....	71+	58+
Amount of stock used in all establishments.....	\$289,843,907	\$386,972,655
Amount of stock used in establishments tabulated.....	\$219,511,318	\$224,005,811
Per cent. of stock used in establishments tabulated.....	75+	57+
Amount of product for all establishments.....	\$414,864,673	\$631,135,284
Amount of product for establishments tabulated.....	\$303,882,634	\$361,181,439
Per cent. of product for establishments tabulated.....	73+	57+

The subject of relative wages in the two States is illustrated by the following grouping of the employes in each under a daily wage classification. The noticeable fact brought out by this comparison is that the proportion of establishments in each State which pay \$2, \$2.25 and \$2.50 per day, are nearly equal, but that for rates less than \$2 and more than \$2.50, the proportion is much greater in Illinois.

WAGES OF EMPLOYES, BY GROUPS, COMPARED.

	ESTABLISHMENTS PAYING SKILLED MECHANICS THE AVERAGE DAILY WAGE INDICATED.			
	ILLINOIS.		MASSACHUSETTS.	
	Number.	Per cent	Number.	Per cent
Under \$1.....	4	.24	2	.08
\$1 to \$1.50.....	24	1.44	47	1.93
\$1.50.....	67	4.02	95	3.89
Above \$1.50, but under \$1.75.....	10	.60	37	1.52
\$1.75.....	103	6.18	97	3.98
Above \$1.75, but under \$2.....	14	.84	25	1.03
\$2.....	409	24.54	567	23.23
Above \$2, but under \$2.25.....	10	.60	23	.94
\$2.25.....	203	12.18	245	10.04
Above \$2.25, but under \$2.50.....	19	1.14	25	1.03
\$2.50.....	402	24.13	605	24.79
Above \$2.50, but under \$3.....	92	5.52	82	3.36
\$3.....	186	11.16	206	8.44
Above \$3.....	86	5.19	67	2.75
Not given.....	37	2.22	317	12.99
Totals.....	1,666	100.00	2,440	100.00

A comparison of the Running Time of establishments in the two States is made next, showing at a glance the number in each which run respectively 8 hours, 8½, 8¾, etc., to 12½ hours per day. This showing indicates rather better hours in Massachusetts, which

may doubtless be ascribed to the effect of the law in that State, which prohibits the employment of women or children more than ten hours a day. In Massachusetts, 30.13 per cent. of all employes are women, while in Illinois only 12.16 per cent. are women, and the preponderance of this class, and the laws governing their employment in Massachusetts, prepare us for finding 80+ per cent. of the establishments in Massachusetts running 10 hours, as against 63+ per cent. of those in Illinois. This disparity is modified somewhat by the fact that 26+ per cent. in Illinois run less than 10 hours, as against 16+ per cent. of those in Massachusetts; but, on the other hand, the number of those which run more than 10 hours is much greater in Illinois than in Massachusetts.

RUNNING TIME OF ESTABLISHMENTS, COMPARED.

Average Daily Running Time Equal to—	No. of Establishments.	
	Illinois.	Massachusetts.
8 hours	33	26
8½ hours		1
8¾ hours	4	13
8¾ hours		1
9 hours	189	186
9¼ hours	1	2
9½ hours	216	182
9¾ hours	1	
9¾ hours		2
10 hours	1,057	1,960
10¼ hours		1
10½ hours	10	14
11 hours	32	27
11½ hours	2	1
12¾ hours	2	
12 hours	102	24
12½ hours	1	
Not given	16	
Totals	1,666	2,440
Per cent. running less than 10 hours	26+	16+
Per cent. running 10 hours.....	63+	80+
Per cent. running more than 10 hours.....	9+	2+

The relative number of months of activity and idleness in manufactures in the two States is indicated, in epitome, by the following table. The discrepancy is very slight, the average duration of active operations in Illinois being 11.34 months per annum, and in Massachusetts 11.57 months—the idle time in each, omitting Sundays and holidays, being represented by 20 days in the year for Illinois and 13 days for Massachusetts.

WORKING TIME AND IDLENESS COMPARED.

	ILLINOIS.			MASSACHUSETTS.		
	Aggregate months of all establishments.....	Average months for each establishment.....	Per cent. of possible working time.....	Aggregate months of all establishments.....	Average months for each establishment.....	Per cent. of possible working time.....
Possible working time of all establishments.	19,800	12.00	100.00	29,280	12.00	100.00
Full time worked by all establishments.....	17,686 ⁷ / ₈	10.72	89.33	26,882	11.01	91.80
Three-fourths time worked by all establishments.....	619	.37	3.13	635	.26	2.17
Two-thirds time worked by all establishments.....	65	.04	.33	137	.06	.47
One-half time worked by all establishments.....	346	.21	1.75	586	.24	2.00
Entire working time of all establishments...	18,716 ¹ / ₂	11.34	94.53	28,24	11.57	96.44
Idle time of all establishments	1,083	.66	5.47	10.40	.43	3.56

Number of establishments considered (Illinois) a.....	1,650
Average number of employes (Illinois).....	95,101
Number of establishments considered (Massachusetts).....	2,440
Average number of employes (Massachusetts).....	207,793

a.—The 16 establishments engaged in the manufacture of woolen goods are omitted, as the necessary data were not reported.

In the succeeding table a comparison is made between the two States, by industries, of the average working time, the average daily earnings, and the average yearly earnings of all employes. The working time shown here is on the basis of full days' work, the half time, two-thirds time and three-fourths time being reduced to full time. The daily earnings are \$1.51 in Illinois, and \$1.23 in Massachusetts, and the yearly earnings in the former are \$430, and in the latter \$358. Both amounts seem very low, but it must be remembered that they are not the yearly earnings of *men*, but an average of all the earnings of men, women and children. If reference be had to the final table of this series—Classes of Employes, by Industries, Compared—the difference in these daily and yearly averages in the two States may be largely accounted for without assuming that the earnings of the heads of families are very much

less in one than in the other. By this table it will be seen that 35.66 per cent. of the employes in Massachusetts are women and children, while only 18.23 per cent. of those in Illinois are of these classes. In other words, Massachusetts employs nearly twice as many women and children in her industries as Illinois, and this large proportion of cheap labor would, doubtless, account in a great measure for the discrepancy in these averages of earnings in the two States.

WORKING TIME AND EARNINGS, BY INDUSTRIES, COMPARED.

Industries.	ILLINOIS.			MASSACHUSETTS.		
	Average work- ing time, in months.....	Average daily earnings of each employe	Average yearly earnings of each employe	Average work- ing time, in months.....	Average daily earnings of each employe	Average yearly earnings of each employe
Agricultural implements	10.55	\$1 67	\$450			
Boots and shoes	11.49	1 27	374	10.60	\$1 41	\$393
Boxes	11.24	1 32	380	11.16	1 33	352
Brick	7.15	1 81	331	7.75	95	189
Brooms and brushes.....	11.34	1 14	332			
Buildings	10.78	1 76	486	10.98	1 69	475
Carriages and wagons.....	11.70	1 53	458	11.59	1 68	497
Chemical preparations	11.45	1 24	364			
Cigars	12.00	1 33	407			
Clocks and watches	11.80	1 62	488			
Clothing.....	11.82	1 26	364	11.49	1 20	352
Cooking and heating apparatus	11.20	1 85	530			
Cotton goods.....				11.95	85	259
Cured and packed meats	9.27	1 63	386			
Drugs and medicines	11.83	1 43	433			
Flour and meal.....	10.63	1 95	531			
Food preparations.....	11.39	1 33	387	11.53	1 58	465
Furniture	11.51	1 51	446	11.54	1 56	461
Leather	11.92	1 55	472	11.76	1 50	452
Lumber	10.07	1 23	317			
Machines and machinery	11.80	1 76	513	11.83	1 61	488
Malt	9.78	1 89	472			
Metals and metallic goods	11.46	1 55	455	11.49	1 45	426
Musical instruments and materials	11.80	2 00	603	11.75	1 96	589
Paints and oils	11.75	1 78	535			
Paper	11.01	1 37	385	11.54	1 17	345
Photographs and other likenesses.....	12.00	2 06	632			
Printing and publishing.....	11.83	1 78	538	11.74	1 77	531
Railroad and other cars and materials	11.68	1 55	462			
Rubber and elastic goods.....				11.70	1 04	312
Soaps.....	12.00	1 27	390			
Stone	10.85	1 68	465	11.25	1 47	423
Tobacco	10.86	1 22	339	11.74	1 33	398
Vessels, sails, etc.	11.00	1 87	526			
Wooden goods	11.48	1 37	401	11.75	1 39	393
Woolen goods				11.78	1 04	313
Worsted goods.....				12.00	94	289
Averages.....	11.13	\$1 51	\$430	11.36	\$1 23	\$358

NOTE.—The blank spaces indicate industries not tabulated for that State. In Massachusetts cured and packed meats and flour and meal are included in food preparations, and cigars are included in tobacco.

The next table illustrates the very close agreement between the States as to the proportion of establishments in the various industries of each, which show net gain and net loss. The computations for both are made upon the common basis of six per cent. on the capital invested for account of interest, and ten per cent. on value of product, for expenses additional to the cost of materials and of labor. The ultimate averages for the States are almost identical, though a wide divergence will be observed in some cases as to individual industries.

PROFIT AND LOSS, BY INDUSTRIES, COMPARED.

Industries.	ILLINOIS.		MASSACHUSETTS.	
	Per cent. of establishments making net profit.....	Per cent. of establishments incurring net loss.....	Per cent. of establishments making net profit.....	Per cent. of establishments incurring net loss.....
Agricultural implements.....	78+	21+	56+	43+
Boots and shoes.....	70	30	76+	23+
Boxes.....	53+	46+	60	40
Brick.....	98+	1+	65+	34+
Brooms and brushes.....	50	50	63+	36+
Buildings.....	43	57	77+	22+
Carriages and wagons.....	77+	22+	74	26
Chemical preparations.....	81+	18+	74	26
Cigars.....	77+	25+	77+	22+
Clocks and watches.....	60	40	77+	22+
Clothing.....	71+	28+	77+	22+
Cooking and heating apparatus.....	85	15	74	26
Cotton goods.....	11+	88+	74	26
Cured and packed meats.....	88+	11+	74	26
Drugs and medicines.....	24+	75+	74	26
Flour and meal.....	73+	26+	47+	52+
Food preparations.....	78	22	78	22
Furniture.....	48+	51+	46+	53+
Leather.....	69+	30+	75+	24+
Lumber.....	77	23	75+	24+
Machines and machinery.....	55+	44+	70+	29+
Malt.....	76+	23+	70	30
Metals and metallic goods.....	90	10	68+	31+
Musical instruments and materials.....	87+	12+	68+	31+
Paints and oils.....	77+	22+	68+	31+
Paper.....	100	0	87	13
Photographs and other likenesses.....	85+	14+	87	13
Printing and publishing.....	35+	64+	72	28
Railroad and other cars and materials.....	70	30	72	28
Rubber and elastic goods.....	67+	32+	77+	22+
Soaps.....	71+	28+	63+	36+
Stone.....	72+	27+	62+	37+
Tobacco.....	69+	30+	73+	26+
Vessels, sails, etc.....	37+	62+	53+	46+
Wooden goods.....	67+	32+	66+	33+
Woolen goods.....	37+	62+	66+	33+
Worsted goods.....	67+	32+	66+	33+
Percentages.....	67+	32+	66+	33+

NOTE.—The blank spaces occurring in both profit and loss columns indicate industries not tabulated for that State. In Massachusetts, cured and packed meats, and flour and meal, are included in food preparations; and cigars are included in tobacco. Six establishments in Illinois (distributed among five industries), which showed neither profit nor loss, are credited to the profit column.

The final comparison to be instituted in this connection is that of the classification of employés, showing the percentages of men, of women, and of children and youth employed in each industry for both States. For Illinois the percentages relate to the 95,912 hands employed in the 1,666 establishments in which \$5,000 or more was paid in annual wages; but for Massachusetts they relate to the hands employed in all the manufacturing industries of the State, the employés of the 2,440 establishments in which \$5,000 or more was paid in wages, not having been classified separately. The proportion, however, for the State, would probably be substantially maintained for the larger establishments.

A glance at this table shows about two and a half times as large a percentage of women employed in Massachusetts as in Illinois. On the other hand, Massachusetts employs a smaller percentage of children and youth, which class, it should be understood, embraces boys 16 years of age or under, and girls 15 years of age or under. In one industry, boots and shoes, the proportion is practically the same, but in every other the difference is very marked, and the excess is always in Illinois. The industries which employ the highest percentages of children in Massachusetts are cotton goods 12 per cent., woolen goods 10 per cent., and worsted goods 11 per cent.; whereas in the tobacco factories of this State 37.75 per cent. of all employés are children; in the woolen mills 13.81 per cent. are children, in the soap factories 13.16 per cent., in the manufacture of musical instruments 12.46 per cent., in lumber 10.23 per cent., and in food preparations 18.47 per cent.

These percentages, however, must not be confounded with numbers. There are in fact 17,445 children and youth at work in Massachusetts, and 8,936 in Illinois, and more children employed in the three textile industries mentioned in Massachusetts than in the whole State of Illinois, yet the percentage of child labor to adult labor is greater in this State than in Massachusetts.

CLASSES OF EMPLOYES, BY INDUSTRIES, COMPARED.

Industries.	ILLINOIS: PERCENT- AGE FOR 1,666 INDUS- TRIES OF—			MASSACHUSETTS: PER- CENTAGE FOR ALL IN- DUSTRIES OF—		
	Men.....	Women..	Children and youth...	Men.....	Women..	Children and youth...
Agricultural implements.....	95.55	.35	4.10	97.90	.10	2.00
Boots and shoes.....	82.12	15.89	1.99	75.00	23.00	2.00
Boxes	82.66	8.22	9.12	51.00	46.00	3.00
Brick.....	92.80	.69	6.51	99.01	.09	.90
Brooms and brushes.....	72.73	20.13	7.14	72.10	27.00	.90
Building	99.08	.....	.92	99.10	.39	.51
Carriages and wagons.....	91.95	1.40	6.65	99.09	.80	.11
Chemical preparations.....	84.57	13.52	1.91	100.00	.....	.....
Cigars.....	80.67	12.14	7.19	.....	.....	.....
Clocks and watches.....	62.57	35.02	2.41	64.15	35.85	.....
Clothing.....	36.78	59.54	3.68	25.00	72.00	3.00
Cooking and heating apparatus.....	97.41	.....	2.59	99.90	.....	.10
Cotton goods .....	.....	.....	.....	37.00	51.00	12.00
Cured and packed meats.....	93.20	.....	6.80	.....	.....	.....
Drugs and medicines.....	57.59	34.56	7.85	80.00	19.00	1.00
Flour and meal.....	97.77	.11	2.12	.....	.....	.....
Food preparations.....	62.83	18.70	18.47	81.00	16.00	3.00
Furniture	90.15	2.05	7.80	92.00	6.00	2.00
Leather	85.37	11.75	2.88	97.00	2.00	1.00
Lumber	89.54	.23	10.23	99.00	.....	1.00
Machines and machinery	97.10	.13	2.77	97.00	1.00	2.00
Malt	100.00	.....	.....	.....	.....	.....
Metals and metallic goods	92.18	2.33	5.49	88.00	9.00	3.00
Musical instruments and materials.....	87.24	.30	12.46	97.10	2.00	.90
Paints and oils.....	91.52	5.40	3.08	93.00	6.00	1.00
Paper.....	84.27	10.53	5.20	46.20	53.00	.80
Photographs and other likenesses.....	63.64	34.34	2.02	64.10	35.00	.90
Printing and publishing.....	76.59	13.97	9.44	72.00	25.00	3.00
Railroad and other cars and materials.....	98.48	.....	1.52	98.00	2.00	.....
Rubber and elastic goods.....	.....	.....	.....	41.00	56.00	3.00
Soaps.....	81.80	5.04	13.16	.....	.....	.....
Stone	98.65	.....	1.35	99.92	.04	.04
Tobacco.....	43.32	18.93	37.75	70.00	28.00	2.00
Vessels, sails, etc.....	75.06	22.69	2.25	100.00	.....	.....
Wooden goods.....	91.36	1.03	7.61	89.00	7.00	4.00
Woolen goods.....	47.97	38.22	13.81	52.00	38.00	10.00
Worsted goods.....	.....	.....	.....	40.00	49.00	11.00
Percentages	81.77	12.16	6.07	64.94	30.13	4.93

NOTE.—The blank spaces occurring in each of the three columns devoted to a State indicate an industry not tabulated. In Massachusetts, cured and packed meats and flour and meal are included in food preparations, and cigars are included in tobacco.

In closing this portion of the report, it may be remarked that the presentation here made, illustrating the profits of capital and the rewards of labor, has been prepared in the belief that it will afford some substantial contribution to the data upon which the final adjustment between capital and labor must be based.

It is not of so much moment as might at first appear, that we do not arrive at the actual profit and loss in any individual case, but content ourselves with supposititious figures of general application. These are sufficiently approximate and so relatively true as to answer all purposes of legitimate deduction. A series of such tables, prepared at successive census periods, would exhibit in the most clear and convincing manner the actual and relative condition of

affairs, and furnish authentic bases for a comparative study of economic problems, possessing the highest value. What is true of such a line of investigation in our State is equally so of others, and would be doubly so for the country at large.

Limited and local statistics may have value for purposes of local legislation, as demonstrated by reports of this Bureau in relation to the condition of coal miners, but the real questions at issue here and in the country at large are fundamental, affecting the relations existing between the two most active elements of society at large, and the importance of similar tabulations to the foregoing for all the industrial States cannot be estimated too highly.

The disposition which has been manifested of late years in many of the States, and more recently by the general government, to establish bureaus for this specific work, is a recognition of the sentiment that with the growth of industrial enterprise in this country, and of classes dependent upon it, grave issues may be impending as to which precedents will be wanting, owing to the anomalous structure of society in this country, and which will render an exact knowledge of facts and conditions imperative.

PART II.

Earnings, Expenses and Condition of Work-
ingmen and their Families,

IN ILLINOIS.

CHAPTER I.

INTRODUCTION.

In Part I of this report there are presented tables deduced from statements made by the manufacturers of the State, to agents of the general government, showing the rates of wages paid to employés, and the relation those wages sustain to the estimated profit or loss realized upon the product of the labor of those employés. That showing is supplemented in the following pages by tabulations of statements made by individual workmen throughout the State to agents of this Bureau, as to their actual earnings during the year preceding April, 1884, and the relation those earnings sustained to the amounts actually expended for the support of their families.

The enquiry of the general government, through its census officials, as to manufactures was directed to every establishment in the State, the value of whose annual product was \$500 or more. Those schedules therefore present the exact facts for the State at large as to the specific points embraced in the enquiry, and the results arrived at are actual and final. The investigation entered upon by this Bureau with its limited resources, could not of course reach every workingman in the State, and has necessarily been confined to those who, so far as possible, were representatives of the various occupations in the various localities. The results obtained, consequently, only approximate the actual condition of the classes considered in proportion as the individuals taken truly represent their respective classes. With this consideration in view the

investigation was made as general as the facilities at the command of the Bureau permitted, and as discriminating as possible. Many thousands of families in the principal industrial centers of the State were visited, by the representatives of the Bureau, for the purpose of obtaining detailed information of their condition; and notwithstanding the indifference of some, and the indisposition of others, the number of those who responded to our interrogatories were greater than at first anticipated. It was made the duty of the canvasser to visit all classes of people who were working for wages, both in skilled and unskilled employments, and those illustrating all degrees of prosperity and adversity; to explain the purposes of the Bureau, and, if necessary, assist in making up a correct statement of the facts elicited; also to make memoranda based upon personal observations as to the general condition and apparent sanitary and social surroundings of each family. In many instances it was found, as expected, that an exact record of receipts and expenditures was not preserved and from some of these no available data whatever could be procured. In other cases partial accounts were kept, or could be referred to, upon which a very close estimate could be fairly established. As was also anticipated more or less prejudice was encountered, and reluctance on the part of some, especially the more prosperous, to furnish facts of which they were possessed, owing to imperfect or erroneous ideas as to the use to be made of them. Notwithstanding obstacles of this character, however, there were everywhere found intelligent men and women ready to coöperate with and assist the Bureau in prosecuting this work, and from such are the details herein presented principally derived.

This work was undertaken in the principal cities and towns, or mining or manufacturing centers, and although failure was encountered in some localities, either through inability to secure suitable agents, or their lack of adaptability for this particular work, the returns have been on the whole gratifying both in number and character. After excluding doubtful and imperfect statements, we are able to present herewith a picture more or less complete of the real and relative condition of 2,129 families of workingmen in Illinois. These families embrace a total of 9,834 persons, living in 51 different cities, towns and villages, engaged in 163 different occupations, and representing 16 different nationalities.

From so large a number of individual cases, covering so great a diversity of condition and surroundings, we should be able to deter-

mine with some degree of exactness very just averages on a variety of subjects, notwithstanding the investigation is less comprehensive than that of a general census.

So far as is known, this enquiry embraces a very much larger number and variety of working people than any of a similar character which has preceded it in this country; and as the presumption in favor of any deductions made, increases with the number of individual cases brought under consideration, provided they are fairly representative, the results of the investigation should possess an unusual interest and value.

We have designed to make this investigation not only so comprehensive as to give the impress of truth to such conclusions as might be reached, but at the same time to make it wholly impartial and unprejudiced. The instructions to our agents were general in their character, and directed solely to the purpose of procuring facts, without reference to preconceived opinions. It is believed to be the province of the statistician to ascertain, so far as possible, facts and conditions as they really exist, and to present them in such form as best to interpret their force and meaning. When so presented, they fail of their purpose if the lessons which they teach are not sufficiently conspicuous to the student of social science, the legislator, and the public.

Our aim here is to depict, in statistical form, the effect of the wage system in Illinois upon those who live by it, to the end that intelligent action may be taken when the occasion arises for the enactment or modification of laws affecting the wage classes.

We show primarily the general character and representative value of our data, with reference to the distribution, nationality and occupation of the families visited.

Next we take up the consideration of earnings and expenses, as affected by local and other conditions, showing in detail the experience of each family in regard to its domestic economy; what proportion of them thrive, and to what extent; how many fail of self-support, and how many barely subsist from year to year upon their earnings, without hope of ultimate provision for old age.

Subsequently it is made to appear in how many instances the head of the family is able to support his family by his individual earnings, and how many families are partially dependent on the labor of wives and children for the necessaries of life. In this connection we show the number of wives at work, and their average earnings; and the number of children at work, their earnings at

different ages, and the relative earnings of the two sexes; also the number, age, and sex of those at home, at school, and at work.

This analysis of earnings is followed by a study of the items which enter into the expense account of the workingman's family, as influenced by his nationality, occupation, and place of abode. It is shown by averages and percentages what amounts are expended relatively for shelter, subsistence and clothing; what proportion of workingmen own the dwellings in which they live; how many provide against the future by life insurance; what amounts are required to defray the expenses incidental to sickness; and what proportion of the heads of families are identified with labor organizations, the cost of the same, and their influence upon average earnings.

All items, both of income and outlay, are thus analyzed, and the various conditions affecting both are considered; but recognizing the fact that the real measure of a man's earnings is their purchasing power, rather than their absolute amount, we have also prepared tables showing the prices of staple articles of food in different parts of this State, and in other States and countries; also what relative amounts of such articles one dollar will buy in Illinois and elsewhere.

The progressive tabular elucidation of these general topics is supplemented by such comments as are necessary to bring out the salient features of the presentation, and the whole constitutes a statement of the general condition of workingmen in the State, full of interest and instruction.

PLACES.

To illustrate the extent of the investigation as regards the number of places and of families visited, the following table has been prepared, showing the names of places, their population as given by the census of 1880, the number of families whose experience was obtained in each place, the whole number of persons in those families, and the average number of persons in each family for each town, and for all of them.

TABLE 1.—*Giving Names and Population of Places visited, and showing the number of Families whose condition was investigated, the number of persons in them, and the average of persons to each.*

Places Visited.	Population 1880. (U. S. Cen- sus.)	Number of families visited.	Number of persons in families.	Average of persons in each family
Alma	165	5	22	4.4
Alton	8,978	48	260	5.41
Aurora	11,875	93	367	3.83
Bartonville	450	13	84	6.46
Belleville	10,682	63	304	4.82
Bloomington	17,184	72	294	4.09
Carlinville	3,118	15	81	5.4
Caseyville	900	4	30	7.5
Centralia	3,623	49	191	3.86
Champaign	5,106	98	425	4.33
Chicago	503,305	354	1,734	4.89
Coal City	568	15	78	5.2
Collinsville	2,839	29	137	4.72
Danville	7,735	131	597	4.55
DuQuoin	2,808	17	69	4.05
East St. Louis	10,000	93	403	4.33
Elgin	8,789	16	62	3.25
Elmwood	1,180	1	3	3.
Equality	500	32	141	4.4
Freeport	8,516	19	94	4.95
Fulton	1,733	12	53	4.41
Galena	6,454	50	254	5.08
Galesburg	11,446	56	231	4.12
Gardner	786	27	137	4.7
Gartside	103	5	21	4.2
Hanna City	87	3	17	5.66
Hollis	125	5	27	5.4
Jacksonville	10,927	61	226	3.7
Joliet	11,659	49	271	5.53
Kickapoo	279	2	10	5.
Limestone	50	1	3	3.
Lincoln	5,639	4	18	4.50
Mapleton	110	5	25	5.
Mattoon	5,742	36	160	4.44
Moline	7,805	138	581	4.21
Mt. Pulaski	1,127	2	12	6.
Pekin	5,998	29	117	4.03
Peoria	29,319	164	740	4.51
Pontiac	2,243	38	172	4.52
Princeville	1,050	3	14	4.66
Quincy	27,275	14	60	4.28
Rentchler	148	2	7	3.5
Rock Falls	894	4	23	5.75
Rock Island	11,661	98	467	4.76
Springfield	19,746	33	170	5.14
Sterling	5,089	51	267	5.23
Streator	5,158	50	266	5.32
Summerfield	751	1	9	9.
Urbana	2,943	17	89	5.23
Washington	1,800	1	4	4.
Wesley City	130	1	10	10.
51 Places	786,598	2,129	9,834	4.62

It will be observed that the number of families visited corresponds in general with the size of the place, though the proportion is not exact. Chicago and the larger cities, Aurora, Belleville, Bloomington, East St. Louis, Galesburg, Jacksonville, Joliet, Moline, Peoria and Rock Island, are represented by the largest number of returns, but some of the smaller places, especially those where coal mining operations are conducted, also contribute considerable numbers to

the general result. A great diversity in the average size of families is found, but that average does not appear to be perceptibly influenced by the size of the town. The final average for the whole 2,129 families is 4.62 persons to each; the extremes are 3. and 10., but they are in both cases single families and not averages. The places in which the largest averages are obtained are almost uniformly small places, but they are also usually coal mining towns, and the returns those of miners' families. A subsequent analysis will indicate that the size of the family is more dependent upon nationality and occupation than upon locality. That the influence of the latter is obscure at least, so far as these returns are concerned, is shown by the fact that the average size for 130 families in 19 of the smaller places is 5.10; that the average for 670 families in 12 towns, with from 5,000 to 10,000 inhabitants, is 4.63, while that of 354 families in Chicago is 4.89. It may be mentioned that the average found for 397 families of working people in Massachusetts was 5.14. This, however, would hardly justify the conclusion that families are really larger in that State. Very much depends, in such an analysis as this, upon the relative number of families which consist of two members only, or the average age of parents. Our own tables embrace 304 families of two each, and 380 families of only three each.

The average size, and the relative size of families, will constitute an important consideration in subsequent chapters treating of the family earnings and expenses.

A special grouping of the places visited, according to the amount of their population, is next shown, in order to indicate readily the relative number and size of the towns, and for convenience in future tabulations. These groups are five in number, Chicago being considered separately. Those having a population less than 1,000, are more in number than any other one class, and are almost without exception communities of coal miners. The population accepted here is that reported by the census of 1880, and is doubtless smaller in some instances than the real population at present.

TABLE II.—*Grouping of Places Visited, according to Population.*

Population less than 1,000	Population from 1,000 to 5,000	Population from 5,000 to 10,000.	Population from 10,000 to 20,000.	Population over 20,000.	Population 500,000.
Alma.....	Carlinville.....	Alton.....	Aurora.....	Peoria.....	Chicago.....
Bartonville.....	Centralia.....	Champaign.....	Belleville.....	Quincy.....	.....
Caseyville.....	Collinsville.....	Danville.....	Bloomington.....	Springfield.....	.....
Coal City.....	DuQuoin.....	Elgin.....	East St. Louis.....	.....	.....
Elmwood.....	Fulton.....	Freeport.....	Galesburg.....	.....	.....
Equality.....	Mt. Pulaski.....	Galena.....	Jacksonville.....	.....	.....
Gardner.....	Pontiac.....	Lincoln.....	Joliet.....	.....	.....
Gartside.....	Urbana.....	Mattoon.....	Rock Island.....	.....	.....
Hanna City.....	.....	Moline.....	.....	.....	.....
Hollis.....	.....	Pekin.....	.....	.....	.....
Kickapoo.....	.....	Sterling.....	.....	.....	.....
Limestone.....	.....	Streator.....	.....	.....	.....
Mapleton.....	.....	.....	.....	.....	.....
Princeville.....	.....	.....	.....	.....	.....
Rentchler.....	.....	.....	.....	.....	.....
Summerfield.....	.....	.....	.....	.....	.....
Rock Falls.....	.....	.....	.....	.....	.....
Wesley City.....	.....	.....	.....	.....	.....
Washington.....	.....	.....	.....	.....	.....
19	8	12	8	3	1

A condensed analysis of the relation of the size of families to the size of towns is shown in the following table. Here the places are grouped as before, and the number of families and average size of the same for each group is given. The largest average is still shown in the smaller towns, while the smallest is in towns of the larger class. Towns having from 5,000 to 10,000 inhabitants furnish an average almost identical with that of the general average for the whole.

TABLE III.—*Average Size of Families, based upon the grouping of places according to population.*

Grades of Population.	Number of families.	Number in families	Persons to each family.
Under 1,000.....	130	663	5.11
From 1,000 to 5,000.....	179	804	4.5
From 5,000 to 10,000.....	670	3,101	4.63
From 10,000 to 20,000.....	585	2,562	4.37
Over 20,000.....	211	970	4.6
Chicago.....	354	1,734	4.89
	2,129	9,834	4.62

OCCUPATIONS.

We now present a descriptive list of the various persons whose experience will constitute the basis for all subsequent tables and deductions. This list refers in all cases to the heads of families, and shows the number visited in each of the several cities and towns, and the occupations in which they are respectively engaged. For the larger places the list of occupations will be found comprehensive and in a measure representative, while for the smaller ones those occupations are given which indicate the prevailing industries.

TABLE IV.—*Showing Places Visited and the Number in each Employment in each Place.*

Places and Occupations.	No. of families visited....	Places and Occupations.	No. of families visited....
ALMA—		AURORA—Continued -	
Coal miners.....	5	Brakeman	1
ALTON -		Bricklayers	1
Blacksmiths	2	Burnisher	1
Bricklayer	1	Cabinetmakers.....	1
Brickmaker.....	1	Caller (R. R.).....	1
Carpenters.....	5	Car builders	3
Car repairers.....	2	Carpenters.....	6
Carriage trimmer	1	Car repairers	2
Cigar maker	1	Clerk	1
Coal miners.....	3	Cooper	1
Coopers.....	3	Engineers (Loc).....	4
Engineers (Sta.)	2	Engineers (Sta.)	3
Fireman (Sta.).....	1	Firemen (Loc.).....	4
Fireman (Loc.).....	1	Flagmen	3
Harnessmakers	2	Harnessmakers	2
Iron worker	1	Helpers	2
Laborers	8	Laborers	15
Moulder.....	1	Machinist	1
Painters.....	2	Moulder.....	1
Pit topman.....	1	Painters.....	5
Pit sinker	1	Pattern makers	2
Plasterer.....	1	Plasterers.....	2
Potter	1	Section man	1
Quarryman	1	Shoemaker	1
Section man	1	Streetcar driver.....	1
Stone cutters	2	Teamsters	6
Spinner	1	Tinner.....	1
Stone mason.....	1	Upholsterer.....	1
Teamster.....	1	Wiper (R. R.).....	1
AURORA—		Wood machinists	3
Blacksmiths.....	2	BARTONVILLE—	
Boiler makers	2	Coal miners.....	13

Table IV.—Continued.

Places and Occupations.	No. of families visited.....	Places and Occupations.	No. of families visited.....
BELLEVILLE—		CHAMPAIGN—	
Blacksmiths.....	2	Baggagemaster.....	1
Brewers.....	3	Barber.....	1
Bricklayer.....	1	Blacksmiths.....	4
Carpenter.....	1	Boilermaker.....	1
Cigarmakers.....	3	Bookbinder.....	1
Clerk.....	1	Bricklayers.....	3
Coal miners.....	12	Cabinetmaker.....	1
Coopers.....	3	Carpenters.....	12
Engineers (Sta.).....	2	Car repairer.....	1
Fireman (Sta.).....	1	Carriage makers.....	2
Glass blowers.....	2	Cigarmakers.....	2
Laborers.....	4	Clerks.....	3
Machinists.....	5	Coopers.....	2
Marble workers.....	3	Ditcher.....	1
Millers.....	2	Draughtsman.....	1
Moulders.....	3	Engineer (Loc.).....	1
Nailers.....	5	Engineers (Sta.).....	3
Packer (flour).....	1	Express driver.....	1
Painters.....	2	Fireman (Loc.).....	1
Pattern maker.....	1	Fireman (Sta.).....	1
Roller (nail mill).....	1	Foreman.....	1
Station agent.....	1	Harnessmaker.....	1
Supt. (flour mills).....	1	Laborers.....	17
Supt. (glass works).....	1	Lather.....	1
Tinners.....	2	Laundryman.....	1
		Lumber handler.....	1
BLOOMINGTON—		Machinists.....	4
Blacksmiths.....	6	Marbleworkers.....	2
Bricklayer.....	1	Millwright.....	1
Carpenters.....	2	Moulder.....	1
Coal miners.....	5	Painters.....	2
Fireman (Loc.).....	1	Paperhanger.....	1
Laborers.....	42	Patternmaker.....	1
Machinist.....	1	Pressman.....	1
Plasterer.....	1	Printers.....	3
Shoemaker.....	1	Plumber.....	1
Stonemason.....	2	Shoemakers.....	4
Teamsters.....	10	Soda water maker.....	1
		Tailors.....	2
CARLINVILLE—		Teamsters.....	2
Blacksmiths.....	2	Telegraphist.....	1
Butchers.....	3	Tinners.....	3
Coal miners.....	5	Train dispatcher.....	1
Saborers.....	4	Upholsterer.....	1
Teamster.....	1	Yardmaster.....	1
CASEYVILLE—		CHICAGO—	
Coal miners.....	4	Bakers.....	9
		Barbers.....	2
CENTRALIA—		Blacksmiths.....	5
Barbers.....	2	Bookbinder.....	1
Blacksmiths.....	2	Brass worker.....	1
Butcher.....	1	Bricklayers.....	13
Calcliminer.....	1	Brickmaker.....	1
Cigarmakers.....	2	Butchers.....	9
Clerks.....	5	Cabinetmakers.....	3
Coal miners.....	2	Car builders.....	3
Express driver.....	1	Carpenters.....	11
Harnessmakers.....	4	Carriage maker.....	1
Iron worker.....	1	Cigarmakers.....	38
Laborers.....	14	Cigarpackers.....	2
Machinist.....	1	Clerks.....	6
Moulder.....	1	Coopers.....	9
Nailers.....	2	Curriers.....	6
Nailplate shearer.....	1	Draughtsmen.....	2
Paperhanger.....	1	Electrician.....	1
Plasterers.....	3	Express drivers.....	2
Printers.....	2	Foreman.....	2
Puddler.....	1	Hardwood workers.....	8
Puddler helper.....	1	Harnessmakers.....	8
Shoemaker.....	1	Hod carriers.....	2

Table IV.—Continued.

Places and Occupations.	No. of families visited	Places and Occupations.	No. of families visited
CHICAGO—Continued.		DANVILLE—	
Horseshoe maker.....	1	Bakers.....	1
Horseshoer.....	1	Barber.....	1
Hostlers.....	2	Blacksmiths.....	1
Ironworkers.....	2	Boilermaker.....	1
Janitor.....	1	Bookkeeper.....	1
Laborers.....	46	Brassworker.....	1
Lumber handlers.....	4	Bricklayers.....	1
Machinists.....	2	Broommaker.....	1
Maker.....	1	Brewers.....	1
Marble worker.....	4	Carpenters.....	1
Mattressmaker.....	1	Cigarmakers.....	1
Moulders.....	9	Coal miners.....	37
Organ builders.....	2	Copyist.....	2
Painters.....	11	Engineer (Sta.).....	2
Painters (carriage).....	3	Harnessmaker.....	1
Painter (car).....	1	Helper (boiler shop).....	1
Paper carriers.....	2	Laborers.....	58
Piano makers.....	2	Loan troyman.....	1
Pictureframe maker.....	1	Machinist.....	1
Plasterers.....	2	Millers.....	1
Plumbers.....	2	Overseers.....	1
Pressman.....	1	Painters.....	5
Printers.....	11	Flowers.....	1
Puddler.....	1	Printer.....	1
Rollingmill hand.....	1	Streetcar drivers.....	3
Sawyers.....	3	Sawyer.....	1
Sailors.....	2	Switchman.....	1
Shoemakers.....	3	Taller.....	1
Silverplater.....	1	Tinner.....	1
Steelworker.....	1	Wagonmaker.....	1
Stonecutters.....	4	Watchmakers.....	1
Stoneplanner.....	1	Wiper (Loc.).....	1
Stonemason.....	1		
Streetcar conductors.....	10	DuQUOIN—	
Streetcar drivers.....	8	Bricklayer.....	1
Tailors.....	3	Carpenter.....	1
Teamsters.....	13	Coal miners.....	1
Telegraphist.....	1	Engineer (Sta.).....	1
Tinners.....	2	Fireman (Sta.).....	1
Toymaker.....	1	Laborers.....	4
Trunkmakers.....	5	Saltmaker.....	1
Upholsterers.....	7	Teamster.....	1
Waiter.....	1		
Watchman.....	1	EAST ST. LOUIS—	
Woodmachinists.....	16	Baggagemasters.....	2
Yardmen (B. R.).....	2	Barber.....	3
		Blacksmiths.....	1
COAL CITY—		Boilermaker.....	1
Coal miners.....	10	Bridge builder.....	1
Engineer (Sta.).....	1	Butchers.....	2
Laborer.....	1	Carpenters.....	3
Pusher.....	1	Car inspectors.....	4
Trackman.....	1	Car repairer.....	1
Weighter.....	2	Catcher (foundry).....	1
		Cigarmaker.....	1
COLLINSVILLE—		Clerks.....	2
Coal miners.....	13	Engineers (Loc.).....	3
Dumper.....	1	Engineers (Sta.).....	4
Engineer (Sta.).....	1	Express agent.....	1
Laborer.....	1	Fireman (Loc.).....	1
Loaders.....	2	Fireman (Sta.).....	1
Machine miners.....	3	Foreman.....	1
Pit boss.....	1	Harnessmaker.....	1
Section boss.....	1	Heaters (bar mill).....	4
Section men.....	3	Inspector (gas works).....	1
Shipping clerk.....	1	Laborers.....	5
Shooter (coal).....	1	Lard renderer.....	1
Shoveler.....	1	Machinists.....	7

Table IV.—Continued.

Places and Occupations.	No. of families visited.	Places and Occupations.	No. of families visited.
EAST ST. LOUIS—Continued.		GALENA -	
Master mechanic.....	1	Blacksmiths.....	4
Millers.....	3	Butchers.....	2
Packers (flour).....	2	Cabinetmakers.....	5
Painter (carriage).....	1	Carpenters.....	2
Patternmaker.....	1	Cigar makers.....	1
Puddlers.....	2	Hat and cap maker.....	1
Refiner (gas works).....	2	Laborers.....	8
Rollers (iron mills).....	4	Machinist.....	1
Roughers (iron mills).....	2	Painters.....	4
Station agent.....	1	Painter (carriage).....	1
Stonemasons.....	2	Plow maker.....	1
Switchman.....	1	Potters.....	2
Superintendent.....	1	Shoemakers.....	4
Teamsters.....	3	Stonemasons.....	2
Watchmen.....	2	Teamsters.....	3
Wipers (Loc.).....	2	Tinners.....	3
Yardmaster.....	1	Wagon makers.....	1
		Sawyer.....	1
ELGIN -		GALESBURG—	
Blacksmiths.....	2	Baker.....	1
Bookkeeper.....	1	Barber.....	1
Bridge builder.....	1	Blacksmith.....	1
Carpenters.....	5	Boiler maker.....	1
Clerk.....	1	Brakeman.....	1
Laborer.....	1	Bricklayer.....	1
Machinist.....	1	Brickmaker.....	1
Plasterer.....	1	Broom maker.....	1
Section boss.....	1	Butcher.....	1
Section man.....	1	Carpenters.....	4
Watchman.....	1	Cigar maker.....	1
		Clerks.....	3
ELWOOD—		Conductor (freight).....	1
Painter.....	1	Engineer (Loc.).....	1
		Engineer (Sta.).....	1
EQUALITY—		Express driver.....	1
Blacksmiths.....	2	Harness maker.....	1
Coal miners.....	10	Helper (mach. shop).....	1
Engineer (Sta.).....	1	Laborers.....	10
Laborers.....	5	Lumber handler.....	1
Pit boss.....	1	Machinists.....	4
Section men.....	3	Moulders.....	3
Shoemakers.....	2	Painters.....	3
Wagon maker.....	1	Patternmaker.....	1
Weigher.....	1	Paper hanger.....	1
		Sectionman.....	1
FREEPORT—		Shoemakers.....	2
Bookkeeper.....	1	Stonecutters.....	2
Bricklayer.....	1	Tailor.....	1
Brickmaker.....	1	Teamsters.....	2
Carpenters.....	2	Tinner.....	1
Clerks.....	2	Wagon maker.....	1
Fireman (Loc.).....	1		
Laborers.....	5	GARDNER—	
Lumber handler.....	1	Baggage master.....	1
Superintendent.....	1	Carpenter.....	1
Moulder.....	1	Coal miners.....	13
Shoemaker.....	1	Ditchers.....	3
Teamster.....	1	Laborers.....	2
Watchmaker.....	1	Mule driver.....	1
		Pit sinker.....	1
FULTON—		Station agent.....	1
Blacksmith.....	1	Section boss.....	1
Carpenter.....	1	Sectionman.....	1
Carriage trimmer.....	1	Trackmen (mine).....	2
Laborers.....	3		
Painter.....	1	GARTSIDE -	
Pipemaker.....	1	Coal miner.....	1
Section man.....	1	Loaders.....	2
Stonemason.....	1	Shovelers.....	2
Teamster.....	1		
Wiper (Loc.).....	1		

Table IV—Continued.

Places and Occupations.	No. of families visited.....	Places and Occupations.	No. of families visited.....
HANNA CITY—		MATTOON—	
Coal miners.....	3	Barber.....	1
HOLLIS—		Bricklayer.....	1
Coal miners.....	5	Broommaker.....	1
JACKSONVILLE—		Carpenters.....	1
Barbers.....	3	Coal miners.....	1
Blacksmiths.....	8	Conductor (Frt.).....	1
Bricklayers.....	2	Engineers (Sta.).....	1
Butcher.....	1	Farm hands.....	1
Carpenters.....	3	Fireman (Loc.).....	1
Carriagemakers.....	4	Gate tender.....	1
Cigarmakers.....	17	Laborers.....	1
Engineer (Sta.).....	1	Machinist.....	1
Foreman.....	1	Marble worker.....	1
Harnessmakers.....	5	Miller.....	1
Millers.....	2	Moulder.....	1
Painters.....	3	Pattern maker.....	1
Painter (carriage).....	1	Printer.....	1
Printers.....	2	Section boss.....	1
Shoemaker.....	1	Switchman.....	1
Stall builder.....	1	Teamster.....	1
Tailors.....	3	Tile maker.....	1
Tinners.....	2	Tinners.....	1
Wagonmaker.....	1	Wagonmaker.....	1
JOLIET—		MOLINE—	
Blacksmith.....	1	Barbers.....	2
Blastfurnaceman.....	1	Blacksmiths.....	9
Brakemen.....	2	Brassworker.....	1
Bricklayer.....	1	Bricklayers.....	3
Butcher.....	1	Butcher.....	1
Cabinetmakers.....	2	Carpenters.....	8
Carpenters.....	2	Clerks.....	5
Currier.....	1	Cooper.....	1
Fireman (Sta.).....	1	Engineers (Sta.).....	2
Foreman.....	1	Fisherman.....	1
Gardener.....	1	Flagman.....	1
Iron and steel workers.....	3	Grinders.....	4
Laborers.....	14	Helpers (in shops).....	2
Marble worker.....	1	Janitor.....	1
Moulders.....	2	Laborers.....	49
Painter (carriage).....	1	Machinists.....	2
Paperhanger.....	1	Moulders.....	7
Patternmaker.....	1	Painters.....	8
Plasterers.....	2	Plow beam bender.....	1
Printer.....	1	Plow fitters.....	3
Prison guard.....	1	Plow temperer.....	1
Shoemakers.....	2	Printer.....	1
Stone mason.....	1	Rag sorter.....	1
Teamster.....	1	Saw filer.....	1
Tinner.....	1	Sawyers.....	2
Wagonmaker.....	1	Sheet iron worker.....	1
Watchman.....	1	Stone cutters.....	3
Wire fence maker.....	1	Stone mason.....	1
KICKAPOO—		Shoemakers.....	2
Coal miner.....	1	Tailors.....	2
Painter.....	1	Teamsters.....	7
LIMESTONE—		Undertaker.....	1
Carpenter.....	1	Wagonmakers.....	2
LINCOLN—		Wood workers.....	2
Coal miners.....	4	Mt. PULASKI—	
MAPLETON—		Carpenter.....	1
Coal miners.....	4	Pit boss.....	1
Laborers.....	1	PEKIN—	
		Blacksmiths.....	2
		Brickmaker.....	1
		Coal miners.....	7
		Engineer (Sta.).....	1

Table IV—Continued.

Places and Occupations.	No. of families visited.	Places and Occupations.	No. of families visited.
PEKIN—Continued.		QUINCY—	
Fireman (Sta.)	1	Blacksmith	1
Laborers	1	Cigar makers	1
Machinists	1	Express driver	1
Painters	1	Laborers	1
Plasterers	1	Machinist	1
Printer	1	Moulders	1
Section boss	1	Plasterer	1
Teamster	1	Stone cutter	1
PEORIA—		RENTCHLER—	
Blacksmiths	4	Coal miners	2
Boiler-maker	1	ROCK FALLS—	
Brass worker	3	Iron chipper	1
Brick layer	1	Millwright	1
Bridge tender	1	Sawyer	1
Butchers	2	Wood worker	1
Carpenters	20	ROCK ISLAND—	
Car repairer	1	Baker	1
Cigar makers	4	Blacksmiths	3
Clerks	3	Brakeman	1
Coal miners	15	Brick layers	1
Coolers	2	Bridge builder	1
Engineer (Sta.)	1	Carpenters	1
Fireman (Sta.)	1	Car repairer	1
Foreman	1	Carriage maker	1
Helper (shops)	1	Cigar makers	1
Laborers	61	Clerk	1
Machinists	2	Corn planter fitter	1
Ma sters	4	Engineer (Loc)	1
Marble workers	2	Fireman (Loc)	1
Millers	5	Glass blower	1
Moulders	8	Harness makers	2
Painters	4	Laborers	28
Plasterer	1	Machinist	1
Plumbers	4	Marble workers	1
Porter	1	Moulders	3
River pilot	1	Monument setter	1
Shoemakers	3	Omibus driver	1
Stone cutters	3	Painters	5
Teamsters	6	Paper hanger	1
Sectionman	1	Plumbers	2
Well digger	1	Shoe maker	1
Watchmen	2	Stone cutters	12
Wood machinist	1	Stone masons	6
PONTIAC—		Stove mounters	2
Barbers	3	Teamsters	4
Bookkeeper	1	Tinners	2
Butchers	2	Yardmaster	1
Carpenters	3	SPRINGFIELD—	
Clerks	3	Baggage man	1
Coal miners	2	Blacksmith	1
Fireman (Sta.)	1	Bookkeeper	1
Harness makers	2	Carpenters	2
Janitor	1	Clerks	4
Laborers	5	Coal miners	3
Painters	2	Engineer (Sta.)	1
Pit boss	1	Fireman (Loc)	1
Plasterer	1	Furnace tender	1
Station agent	1	Gilder	1
Shoemaker	1	Heater (foundry)	1
Tailors	3	Helper (furnace)	1
Teamster	1	Laborers	3
Telegraphist	1	Machinist	1
Tile maker	1	Moulders	3
Tinner	1	Painter	1
PRINCEVILLE—		Pit boss	1
Carpenters	2	Printer	1
Coal miner	1		

Table IV—Continued.

Places and Occupations.	No. of families visited.....	Places and Occupations.	No. of families visited.....
SPRINGFIELD—Continued.		STREATOR—	
Teamster.....	1	Blacksmith.....	1
Watchmaker.....	1	Cager coal mine.....	1
Watch factory operators.....	3	Carpenter (coal mine).....	1
STERLING—		Coal miners.....	2
Baker.....	1	Laborer coal mine.....	1
Barber.....	1	Loader coal mine.....	1
Blacksmith.....	1	Fireman coal mine.....	1
Bricklayer.....	1	Machine miner.....	1
Butcher.....	1	Mule drivers.....	1
Cabinetmaker.....	1	Pit boss.....	1
Carpenter.....	1	Pit-topman.....	1
Carpet weaver.....	1	Trackmen.....	1
Carriage trimmer.....	1	Shoveler.....	1
Cigar maker.....	1		
Clerk.....	1	SUMMERFIELD—	
Coal heaver.....	1	Coal miner.....	1
Cooper.....	1		
Engineer (Sta).....	1	URBANA—	
Harness maker.....	1	Blacksmiths.....	7
Iron workers.....	4	Blacksmith helper.....	1
Laborers.....	7	Boltermakers.....	2
Machinists.....	2	Bricklayer.....	1
Marble worker.....	1	Car inspectors.....	2
Millers.....	2	Engineer (Loc).....	1
Moulder.....	1	Master mechanic.....	1
Painters.....	2	Machinist.....	1
Paper maker.....	1	Tile maker.....	1
Pattern maker.....	1		
Plasterer.....	1	WASHINGTON—	
Plumber.....	1	Carpenter.....	1
Printer.....	1		
Stonemasons.....	2	WESLEY CITY—	
Shoemaker.....	1	Coal miner.....	1
Superintendent.....	1		
Tailor.....	1		
Tinner.....	1		
Wagonmaker.....	1		
Woodworkers.....	6		

CLASSIFICATION.

For purposes of convenience in deducing general results and final averages, we condense the foregoing list of occupations into characteristic groups, indicating the general nature of the employment, to correspond with the grouping made of places. There are in all 163 different occupations given, not counting separately a number which for our purposes may be classified with ordinary laborers. These are brought together in eight general divisions: Building Trades, Shop Trades, Metal Workers, Railroad Employés, Coal Mine Employés, Out-door Occupations, In-door Occupations, and Foremen, Overseers, etc. The following table indicates what occupations are placed under each of these general heads. The divisions are sufficiently distinctive, with perhaps the exception of the Out-door and in-door classes. An arbitrary distribution is made here of a large miscellaneous class which could hardly be placed with propriety in either of the other classes. It will be observed that the Out-door class is almost wholly made up of unskilled workers, such as day laborers, teamsters and street-car men. Those placed in In-door Occupations are largely clerks, printers, millers, stationery engineers and others engaged in sundry employments, not clearly belonging to the other general divisions. Under the head of Foremen, etc., are embraced superintendents, overseers, managers and such persons as are placed in advanced positions over others; and they are separated in this way, in order that their earnings, which are usually in excess of those of others, may not impair the averages for ordinary workmen. With this classification is also extended the average size of families in each general class.

TABLE V.—*Classification of Occupations into eight general groups, with a further presentation of the average family size in each.*

BUILDING TRADES.

Classification of Occupations.	Number of families.	Number in families.	Av. No. in each family.
Bricklayers.....	46	216	4.69
Brickmakers.....	5	21	4.2
Bridge-builders.....	5	19	3.8
Carpenters.....	106	471	4.44
Calclminers.....	1	2	2.
Hod carriers.....	3	10	3.33
Lather.....	1	3	3.
Painters.....	62	260	4.19
Paperhangers.....	6	34	5.66
Plasterers.....	23	118	5.13
Stairbuilder.....	1	2	2.
Stonemasons.....	19	85	4.47
	278	1,241	4.46

SHOP TRADES.

Bakers.....	14	67	4.79
Barbers.....	18	65	3.61
Bookbinders.....	2	10	5.
Broommakers.....	3	7	2.33
Burnisher.....	1	5	5.
Butchers.....	27	137	5.06
Cabinetmakers.....	15	58	3.87
Carriage ironers.....	2	7	3.5
Carriage makers.....	5	25	5.
Carriage painters.....	7	21	3.
Carriage trimmers.....	4	14	3.5
Cigarmakers.....	79	307	3.89
Cigarpackers.....	2	12	6.
Coopers.....	23	115	5.23
Curriers.....	7	33	4.71
Glassblowers.....	3	11	3.66
Gilder.....	1	12	12.
Grinders.....	4	15	3.75
Harnessmakers.....	31	120	3.87
Marbleworkers.....	17	77	4.53
Mattressmaker.....	1	5	5.
Organ builders.....	2	13	6.5
Pianomakers.....	2	13	6.5
Patternmakers.....	8	35	4.37
Pictureframe maker.....	2	9	4.5
Plowmakers.....	7	40	5.71
Refiner (gas).....	1	2	2.
Sawyers.....	8	42	5.25
Shoemakers.....	32	173	5.41
Silver plater.....	1	5	5.
Stonecutter.....	28	131	4.7
Tailors.....	16	89	5.56
Tinners.....	21	100	4.76
Toymaker.....	1	8	8.
Trunkmakers.....	5	23	4.6
Upholsterers.....	9	41	4.55
Wagonmakers.....	12	55	4.58
Wood machinists.....	20	77	3.85
Woodworkers (hand).....	17	89	5.23
	457	2,068	4.52

METAL WORKERS.

Classification of Occupations.	Number of families.	Number in families.	Av. No. in each family.
Blacksmiths.....	71	332	4.67
Blacksmiths' helper.....	5	21	4.2
Boilermakers.....	9	52	5.8
Boilermakers' helpers.....	1	2	2.
Brass workers.....	2	7	3.5
Brass moulders.....	3	14	4.66
Brass finishers.....	1	4	4.
Catcher (foundry).....	1	4	4.
Furnace men.....	4	19	4.75
Horseshoe maker.....	2	8	4.
Heaters (bar mill).....	4	15	3.75
Heaters (foundry).....	1	9	9.
Iron and steel workers.....	13	72	5.53
Machinists.....	34	146	4.29
Moulders.....	49	200	4.08
Nailers.....	7	36	5.14
Nail plate shearer.....	1	5	5.
Plumbers.....	9	42	4.77
Puddlers.....	4	18	4.5
Puddlers' helper.....	1	4	4.
Rollers (nail mill).....	1	5	5.
Rollers (foundry).....	3	19	6.33
Rollers (guide mill).....	1	5	5.
Rolling mill hands.....	5	27	5.4
Rougher (foundry).....	1	2	2.
Saw-filer.....	1	5	5.
Sheet-iron worker.....	1	4	4.
Stove-mounters.....	2	5	2.5
Watchmakers.....	4	12	3.
Watch factory operatives.....	3	16	5.33
	244	1,110	4.55

RAILROAD EMPLOYES.

Baggagemen.....	5	21	4.2
Blacksmiths.....	3	10	3.33
Blacksmiths' helpers.....	2	10	5.
Brakemen.....	5	22	4.4
Car builders.....	5	28	5.6
Car repairers.....	8	37	4.62
Car painters.....	2	9	4.5
Car inspectors.....	6	25	4.16
Carpenters.....	3	13	4.33
Caller.....	1	2	2.
Check clerks.....	4	15	3.75
Conductors (Fr't).....	2	11	5.5
Engineers (Loc.).....	12	53	4.42
Firemen (Loc.).....	16	65	4.06
Flagmen.....	4	11	2.75
Helpers (in shops).....	3	9	3.
Laborers (in-door).....	3	19	6.33
Laborers (out-door).....	13	66	5.07
Machinists.....	7	37	5.29
Master mechanics.....	2	14	7.
Patternmaker.....	1	2	2.
Rougher.....	1	4	4.
Section bosses.....	5	31	6.2
Section men.....	13	61	4.69
Station agents.....	4	12	3.
Switchmen.....	3	13	4.33
Teamster.....	1	2	2.
Train dispatcher.....	1	4	4.
Watchmen.....	4	18	4.5
Wipers.....	5	24	4.8
Yardmasters.....	3	9	3.
Yardmen.....	2	17	8.5
	149	674	4.52

COAL MINE EMPLOYES.

Classification of Occupations.	Number of families.	Number in families.	Av. No. in each family.
Blacksmith	1	7	7.
Cager	1	6	6.
Carpenters	2	8	4.
Coal miners.....	232	1,208	5.2
Ditchers	2	6	3.
Drivers (mule)	3	11	3.66
Dumper	1	3	3.
Engineers.....	3	9	3.
Firemen.....	2	5	2.5
Laborers	8	40	5.
Loaders	5	18	3.6
Machine miners	4	20	5.
Machinist	1	5	5.
Pit bosses.....	6	30	5.
Pit sinkers.....	2	7	3.5
Pit topmen.....	2	7	3.5
Pusher	1	9	9.
Shipping clerk	1	4	4.
Shooter	1	5	5.
Shovelers	4	15	3.75
Trackmen.....	6	30	5.
Weighers	2	8	4.
	290	1,461	5.04

OUT-DOOR OCCUPATIONS.

Bridge tenders	2	11	5.2
Coal heaver.....	1	8	8.
Ditcher	1	3	3.
Express drivers	7	38	5.43
Farm hands.....	2	18	9.
Fisherman	1	8	8.
Gardener	1	11	11.
Laborers	374	1,741	4.65
Lead miners	2	10	5.
Lumber handlers	8	39	4.87
Monument setter.....	1	3	3.
Omnibus driver.....	1	5	5.
Paper carriers	2	4	2.
Quarrymen	5	30	6.
River pilot	1	3	3.
Sailors	2	4	2.
Street car conductors	10	67	6.7
Street car drivers	11	55	5.
Teamsters	65	302	4.7
Well digger	1	5	5.
Wood sawyer.....	1	6	6.
Wood chopper.....	1	5	5.
	500	2,366	4.73

IN-DOOR OCCUPATIONS.

Book-keepers	5	16	3.2
Brewers.....	5	30	6.
Clerks	41	159	3.88
Copyist	1	5	5.
Draughtsmen.....	3	8	2.66
Electrician	1	5	5.
Engineers (Sta.).....	27	130	4.81
Express agent	1	6	6.
Firemen (Sta.)	7	46	6.57
Flour packers	3	8	2.66
Hostlers.....	3	13	4.33
Janitors.....	4	19	4.75

In-door Occupations—Continued.

Classification of Occupations.	Number of families.	Number in families.	Av. No. in each family.
Laborers	19	82	4.31
Laundrymen	2	7	3.5
Lard renderer	1	6	6.
Malsters	5	19	3.8
Millers	16	63	4.
Millwright	2	7	3.5
Paper maker	1	3	3.
Pipe maker	1	4	4.
Potters	3	16	5.33
Pressmen	2	9	4.5
Printers	26	99	3.8
Prison guard	1	2	2.
Rag sorter	1	5	5.
Salt maker	1	3	3.
Soda water maker	1	4	4.
Spinner	1	9	9.
Telegraphists	3	11	3.66
Tile makers	3	14	4.66
Waiter	1	5	5.
Watchmen	3	13	4.33
Weaver (carpet)	1	5	5.
Wire fence maker	1	3	3.
	196	834	4.25

FOREMEN, SUPERINTENDENTS, ETC.

Car stables	1	6	6.
Cigar factory	1	3	3.
Flouring mill	1	6	6.
Gas works	4	26	6.5
Glass works	1	8	8.
Machine shops	3	14	4.66
Nail mill	1	3	3.
Planing mill	1	3	3.
Stone works	1	6	6.
Woolen mill	1	5	5.
	15	80	5.33

SUMMARY.

Building trades	278	1,241	4.46
Shop trades	457	2,068	4.52
Metal workers	244	1,110	4.55
Railroad employes	149	674	4.52
Coal mine employes	290	1,461	5.04
Out-door occupations	500	2,366	4.73
In-door occupations	196	834	4.25
Foremen, etc.	15	80	5.33
	2,129	9,834	4.62

The final summary here exhibits in a concise form the number of families we have under consideration in each of the general groups of occupations. It will be seen that out-door occupations have the greatest number of representatives; that shop trades, building trades

and metal workers each have a representation worthy of their importance, while the number and variety of the railroad and coal mine employés is sufficient to afford very just averages for those classes. The size of families, as shown in this new analysis, is also of interest. The averages, as deduced for the different localities, indicated that, upon further investigation, the families of coal miners would appear as larger than those of other occupations. This is seen to be true in the foregoing table. Aside from the small class of foremen, which is exceptional in all respects, the coal mine employés show the largest family average. Next in order in this respect are the out-door, unskilled workers, who have an average of 4.73 to the family. It will be found in subsequent investigations that those two classes which show the largest families, also show the smallest average earnings, and occupy the lowest plane as to general condition. The difference in the size of families in other classes is noticeable, but not specially significant.

To afford a comprehensive view of the character of our returns, both as regards the distribution of the families represented, and the general nature of their employments, the following table is arranged to show at a glance the number in each of the general classes which report from each locality. In this and subsequent tables the returns from a group of small villages in the vicinity of Peoria are aggregated under the designation Peoria County, as distinguished from the city of Peoria.

TABLE VI.—*Classification by Localities and Occupations.*

Towns.	Building trades.	Shop trades.	Metal workers	R. R. employés	Coal mine employés.	Out-door occupations.	In-door occupations.	Foremen, etc.	Totals.
Alma.....					5				5
Alton.....	11	9	4	5	5	8	6		48
Aurora.....	22	15	6	23		22	5		83
Bartonville.....					13				13
Belleville.....	4	14	16	1	12	4	10	2	53
Bloomington.....	6	1	7	1	5	52			67
Carlinville.....		3	2		5	5			15
Caseyville.....					4				4
Centralia.....	5	10	10		2	15	7		49
Champaign ..	19	23	9	8		20	18	1	88
Chicago.....	46	155	26	17		79	29	2	274
Coal City.....					15				15
Collinsville.....				4	25				29
Danville.....	19	12	7	2	37	40	12	2	131
DuQuoin.....	2				9	4	2		17
E. St. Louis ..	4	8	19	29		11	19	3	83
Elgin.....	7		3	3		1	2		16
Equality.....		3	2	3	19	4	1		32
Freeport.....	4	1	2	1		7	3	1	19
Fulton.....	3	1	1	2		4	1		12
Galena.....	10	22	5			11	2		50
Galesburg.....	9	14	7	9		13	4		56

Table VI.—Continued.

Towns.	Building trades.	Shop trades.	Metal workers	R. R. employes	Coal mine employes.	Out-door occupations.	In-door occupations.	Foremen, etc.	Totals.
Gardner				4	23				27
Gartside					5				5
Jacksonville ..	9	38	8				5	1	61
Joliet	7	11	12	2		10	6	1	49
Lincoln					4				4
Mattoon	8	7	2	5	3	6	5		36
Moline	20	27	23	2		57	9		138
Mt. Pulaski ..	1				1				2
Pekin	4		4	4	9	5	3		29
Peoria	16	17	22	3	15	66	24	1	164
Peoria Co'nty ..	6				14	2			22
Pontiac	6	14		2	3	6	7		33
Quincy	1	4	6			3			14
Kentchler					2				2
Rock Falls		2	1				1		4
Rock Island ..	18	26	11	9		33	1		98
Springfield ...	3	1	12	2	4	4	7		33
Sterling	7	20	9			8	6	1	51
Streator					50				50
Summerfield ..					1				1
Urbana	1		7	8			1		17
Totals	278	457	244	149	290	500	196	15	2,129

NATIONALITIES.

The next consideration in natural sequence, after that of the location and occupation of the families here presented, is that of their nationality. This was taken by the canvasser as to the father or head of the family only. All such as were not foreign born were reported as natives. In this and other respects the line of enquiry was simplified as much as possible to avoid the prejudice which a long list of categorical questions might provoke.

The nationality of the family however is an important and interesting consideration in any study of social or economic conditions, and as such, constitutes a feature of all the subsequent tables. At present the showing is confined to the influence nationality has upon the average size of families, and the following summary indicates the number of nationalities which are represented in our returns, the number of families of each nationality and their average size.

TABLE VII.—*Showing Nationalities, Number of Families, and Average size of the same.*

Nationality of Head of Family,	Number of families visited.	Number of persons in the same.	Av. No. persons in each family.
American	978	4,249	4.33
English	152	769	5.05
Scotch	65	369	5.67
Irish	348	1,633	4.69
Welsh	25	100	4.
Germans	349	1,723	4.93
Scandinavians	107	561	5.24
Danes	13	48	3.69
Italians	11	54	4.90
Poles	4	15	3.75
French	21	102	4.85
Swiss	5	30	6.
Canadians	22	62	2.81
Bohemians	5	12	2.40
Portuguese	1	2	2.
Colored	23	105	4.56
Totals	2,129	9,834	4.62

A glance at the foregoing discloses the fact that nearly one-half (46 per cent.) of the whole number are Americans, or natives of the United States; that the Irish and Germans are about equally represented, and constitute together about one-third of the whole. The English and Scandinavians come next; and they are followed in order by the Scotch, Welch, Canadians and French. Six other races have more or less representation, besides the colored people, of whom there are 23 families. Omitting the nationalities whose numbers do not admit of averages of particular significance, it is at once noticeable that the fruitfulness of Americans as a race is less than that of any of the others; that the more prolific are the English, Scotch, Germans and Scandinavians; and that all these classes show larger families than the Irish, who in this respect are only a little above the general average for all classes.

In order to identify the respective nationalities with specific occupations, the following analysis is made, showing the distribution of the different races among the several employments. This table consists of an alphabetical arrangement of the different occupations shown in our returns, with the number of families in each, and also their respective nationalities.

TABLE VII.--*Showing the Nationality of Head of Family, and Occupation.*

Occupation of Head of Family.	NATIONALITIES.											
	Whole number	American	English	Scotch	Irish	Welch	Germans	Scandinavians	Danes	Italians	Poles	French
Bakers	14	1					4	3	2		1	1
Barbers	18	12					4					
Baggagemen	5	4			1							
Boilermakers	9	2		2	8		2					
Boiler helper	1	1										
Bookbinders	2	2										
Bookkeepers	5	5			1		1					
Blacksmiths	75	33	6		8		29	6				1
Blacksmith helpers	7	2			2		3					
Brakemen	5	3			1		1					
Brass workers	5	5					1					
Brewers	5						5					
Bricklayers	46	24	7	1	10		3					
Brickmakers	5	3	1		1							
Bridge builders	5	4					1					
Bridge tenders	2				2							
Broom makers	3	2					1					
Burnisher	1	1										
Butchers	27	7	2	1	2		10	3				1
Cabinetmakers	15	4			1		8	2				
Cager	1	1										
Calender	1	1										
Caller	1					1						

Table VII.—Continued.

Occupation of Head of Family.	NATIONALITIES.																
	Whole number	American	English	Scotch	Irish	Welsh	German	Scandinavian	Danes	Italians	Poles	French	Swiss	Canadians	Colored	Bohemians	Portuguese
Mattress maker	1	1															
Millers	16	8	2		1		4							1			
Millwrights	2	2															
Moulders	49	26	4	3	9		3	3				1					
Monument setter	1	1															
Mule drivers	3	1	1						1								
Nailers	7	5	2														
Nailplate shearer	1	1															
Organ builders	2							1						1			
Omnibus driver	1							1									
Painters	62	40	4	1	1		11	3						2			
Paper carriers	2	2															
Paper hangers	6	3				1	1				1						
Paper maker	1	1															
Pattern makers	9	5		1			2	1									
Piano makers	2						2										
Picture frame makers	2	1						1									
Pit bosses	6	1	3	2													
Pit sinkers	2		2														
Pit topmen	2	1				1											
Plasterers	23	11	3	1	3		2	1									
Plowfactory men	7	3						2									
Plumber	10	5		2	1			2									
Potters	4	3			1												
Pressmen	2	2															
Printers	26	22	1				1	1					1				
Prison guard	1	1															
Puddlers	4	2			1	1											
Puddler helper	1	1															
Quarrymen	5				2		2	1									
Rag sorter (paper mill)	1							1									
Refiner (gas)	1				1												
River pilot	1	1															
Roilers	5	2				2	1										
Rolling mill hand	5				5												
Roughers	2		1		1												
Salt maker	1	1															
Saw filer	1							1									
Sawyers	8	6			1									1			
Seamen	2		2														
Section bosses	5	4			1												
Section men	13	5			7		1										
Silver plater	1	1															
Sheet-iron worker	1	1															
Shoemaker	32	8	2		4		16	1				1					
Shooter (coal)	1	1															
Sodawater maker	1						1										
Spinner	1	1															
Stair builder	1	1															
Station agents	4	4															
Stonemasons	19	4	2	1	2		9					1					
Stonecutters	28	12	1	2	6		4	2						1			
Stovemounters	2	2															
Street car conductors	10	2			6		2										
Street car drivers	11	4			4		3										
Switchmen	3	2			1												
Tailors	16	2	1		3		6	3								1	
Telegraphist	3	3															
Teamsters	66	28	1		15		14	3	1		2			1			
Tile makers	3	2					1										

Table VII.—Continued.

Occupation of Head of Family.	NATIONALITIES.												
	Whole number	American	English	Scotch	Irish	Welsh	German	Scandinavians	Danes	Italians	Poles	French	Swiss
Tinners	21	15	1		1		4						
Toymaker	1						1						
Trackmen (mine)	6	1	2	1		2							
Train dispatcher	1		1										
Trunkmakers	5	1					4						
Upholsterers	9	2			4						1		
Wagonmakers	12	5	1		2		4						
Walters	1		1										
Watchfactory operatives	3	1	2										
Watchmakers	6	3											
Watchmen	1	2			5								
Weaver	1						1						
Weighers	2	1	1										
Well digger	1		1										
Wood machinists	20	9			5		5	1					
Wood workers	17	6			3		5	3					
Wipers (Loc)	6				2		3						
Wirefence maker	1						1						
Yardmasters	3	2			1								
Yardmen	2				1			1					
Totals	2129	978	152	65	348	25	349	107	13	11	4	21	5

Special interest will attach to this table as indicating the variety of industries represented, and the number engaged in each. This showing, however, may be made somewhat more perspicuous by the use of our general classification of trades, and an arrangement of the nationalities represented in each, as follows:

TABLE IX.—Showing Nationalities and their Representation in the Classified Occupations.

Nationalities.	Whole number.	Building trades.	Shop trades	Metal workers.	Coal mine employes.	Railroad employes.	Out-door occupations	In-door occupations.	Foremen	Totals.
Americans	978	173	202	130	63	74	178	148	10	978
English	152	21	15	20	76	4	14	2		152
Scotch	65	7	7	7	38	1	4	1		65
Irish	348	24	45	43	47	38	144	4	3	348
Welsh	25	1	5	4	12	3				25
German	349	33	132	33	28	18	78	26	1	349
Scandinavians	107	10	25	6	13	5	43	5		107
Danes	13		2		4	2	5			13
Italians	11				5		6			11
Poles	4	1	3							4
French	21	3	3	1	1	3	8	1	1	21
Swiss	5		2		1		1	1		5
Canadians	22	4	8		2			8		22
Colored	23		2			1	19			23
Bohemians	5		5							5
Portuguese	1		1							1
Totals	2,129	278	457	244	290	149	500	196	15	2,129

Here is presented in epitome the number of Americans and of other nationalities who are engaged in each of our eight general divisions of labor. It will be noticed that the greatest number of the American workers are found in the shops; that the English, Scotch and Welch are largely in the mines; that the Irish and Scandinavians and the colored show the largest numbers in out-door occupations; while the greatest number of Germans are in shop trades. This refers not to the relative number employed in the several trades, as shown, but to the proportions of each nationality so engaged. The salient features of this analysis may be brought out more forcibly still by the computing of percentages for the principal nationalities.

TABLE X.—*Showing the Percentages of the Principal Nationalities engaged in the different Classes of Occupations.*

Nationalities.	Whole number.....	Percentage employed in building trades.....	Percentage employed in shop trades.....	Percentage of metal workers...	Percentage employed in coal mines.....	Percentage employed by railroads.....	Percentage engaged in out-door occupations	Percentage engaged in in-door occupations..	Percentage of foremen, etc..	Total percentage...
Americans.....	978	.18	.21	.13	.06	.08	.18	.15	.01	100
English, Scotch and Welch...	242	.12	.12	.12	.52	.03	.07	.02	.....	100
Irish.....	348	.07	.13	.13	.14	.10	.41	.01	.008	99.8
Germans.....	349	.09	.38	.10	.08	.05	.22	.08	.....	100
Scandinavians	107	.09	.23	.06	.12	.05	.40	.05	.....	100

A final illustration on this subject is obtained by reducing all classes to the skilled and unskilled, except the railroad and mine employes, who are shown separately, and computing the percentages of each nationality engaged in these four general classes.

TABLE XI.—*Showing Percentages of Skilled and Unskilled Workers of the Different Nationalities.*

Nationalities.	Whole number.	Percentage of skilled workers.	Percentage of unskilled workers.	Percentage of railroad employes.	Percentage of mine employes.
Americans.....	978	.67	.19	.08	.06
English, Scotch and Welch.....	242	.38	.07	.03	.52
Irish.....	348	.35	.41	.10	.14
Germans.....	349	.65	.22	.05	.08
Scandinavians.....	107	.43	.40	.05	.12
	2,024	49.6	25.8	.062	1.84

Here may be readily seen the position occupied by the different nationalities as to the general character of their occupation. The Americans and Germans show the largest percentages in the skilled trades; the English, Scotch and Welch predominate in the mines; the Irish and Scandinavians in unskilled occupations, and the Irish and Americans show the largest percentages in railroad employments.

The results reached indicate very comprehensively the character of the returns under consideration, both as regards the nationality representation and the classes of workmen reached. This ultimate grouping embraces 2,024 of the 2,129 returns, and of these one-half, 49.6 per cent., are skilled workmen; one-fourth, or 25.8 per cent., are unskilled laborers; and the other fourth represents only such degrees of skill as are required in railroad and mining occupations. This is certainly very broadly representative as regards the character of employments. The extent of the investigation as to the territory covered and the race representation secured, has also been very fully indicated. From this general survey of the work, it is believed the results will commend themselves as in a marked degree indicative of the real condition of wage laborers of all classes in all parts of the State.

CHAPTER II.

EARNINGS AND EXPENSES.

An outline of the extent of our enquiry as to places, nationalities and kinds of labor, is afforded in the preceding chapter. It is there shown that 2,129 families were visited, in 51 different places in the State, and that the heads of these families were engaged in 163 kinds of labor, and represented 16 different nationalities. The representative value of the returns obtained was also considered, by an analysis as to towns, trades and races.

This general consideration of the nature of the investigation undertaken, fitly introduces the more explicit showing contemplated in the present chapter. We have thus far merely glanced at the general distribution of the returns, and in connection therewith considered the average size of the families of workingmen, as influenced by various conditions. What those families are able to earn as wages for an average year's work, and what relation those earnings sustain to the family expenditures, constitute the next consideration. In this connection a distinction should be recognized between earnings and wages. The tables in Part I of this report treat of wages as reported by manufacturers, and the average working time being given, the probable average wages received are deduced. The earnings given in the subsequent tables refer to the amounts actually received for such work as was really done, at such wages as could be obtained. They therefore constitute the real index of the situation, rather than any nominal rate of wages.

The following general table will be found to embrace the details, both of income and outlay, for each family. While for final deductions, or comparisons, use may be made of summaries and averages as representing relative conditions, the foremost value in a statistical presentation of this character must attach to the specific experiences of the individuals. These constitute the details of a picture whose general aspect every one is more or less familiar with, and as such possess a peculiar interest which aggregates of figures can not have. This table, therefore, is a comprehensive summary of individual cases, under a wide variety of conditions, and, so far as possible, it constitutes a detailed financial history of each family for the period of one year.

The primary grouping is that by occupations; but under it each family is further characterized by its place of residence, nationality, the number of persons of which it is composed, and the size of the tenement in which they live. These conditions being given, the separate and combined earnings of the various members of the family are shown; also the family expenditures, subdivided into twelve general items; and finally the gain or loss resulting at the end of the year.

This is in the nature of a recapitulation of the leading features of the original returns, and presents many interesting details, as well as data for establishing final conclusions. Footings are made for each occupation and averages deduced, but these are subject to subsequent treatment in later tables, which more fully develop their relative significance.

The manner in which the material for this presentation was procured has already been indicated. Representatives of the Bureau consulted with workingmen and their wives at their homes, and, when necessary, assisted them in making up memoranda of their various receipts and disbursements. In some instances access was had to the pay-rolls of employers in order to verify the items of earnings; and where "company stores" were maintained in connection with mines, or other industries, the monthly account current rendered to each employé was readily referred to, both for earnings and the greater part of expenditures. There was, notwithstanding, much patient and careful enquiry required, in order to arrive at the closest possible approximation to the exact facts. It would hardly be justifiable to assume that there was any general tendency on the part of families either in the direction of overestimation or underestimation in making up their accounts. The disposition on the part of some to exaggerate their annual balances was offset by that of those inclined to the other extreme, and it was the delicate duty of the canvasser to check this tendency in both. In view, therefore, of the caution exercised in this respect, and the subsequent scrutiny all statements received in this office in the effort to eliminate inconsistent and doubtful returns, we feel justified in expressing confidence in the general integrity of the representations made, and in the deductions made therefrom. There can be no question as to the many advantages this plan of procuring statistics has over that of issuing circulars through the mails, and depending upon such voluntary replies as may be made. As compared with returns of that character, these may justly claim to possess a maximum as against a minimum of accuracy and value. With these remarks we present the following extended synopsis of the economic condition of a large body of workingmen in Illinois.

Note.—RENTS: Blank spaces in the column devoted to rents, indicate that the family owns its home and does not pay rent. In such cases taxes and repairs are included in "Sundries." MEAT AND GROCERIES: Spaces in the column for cost of meat, indicate that the amount expended for this item is included in the general sum given for Groceries. CLOTHING, ETC.: Spaces in this column devoted to Boots and Shoes and Dry Goods show that the expenditures for these articles are embraced in the amount given for clothing. The averages for these imperfect columns relate only to the number of families for which specific figures are given. For exact computations of averages see later tables.

PLACE.

[illegible]

BARBERS.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings	Number in family	Number of rooms occupied.	ANNUAL EXPENDITURES FOR—										Total expenses	Surplus	Debt.		
		Husband	Wife	Children				Rent	Fuel	Meat	Groceries	Clothing	Boots and shoes	Dry goods	Books	Life insurance	Trade unions	Sickness	Sundries			
Centralla	Ger	\$576			\$576	3	3	\$96	\$36	\$84	\$120	\$75	\$28	\$50	\$5			\$25	\$40	\$559	\$17	
Champaign	Col	\$84			484	3	3	18	20	50	192	40	15	45				5	20	435	48	
Chicago	Am	\$24	\$100		624	3	3	96	45		160	55			21			14	7	998	228	
					500	3	3	84	30	100	175	60		60	5			10	15	546		\$46
					624	4	4	180	40	120	300	100	25	100	10			25	20	999		375
Dunville	Ger				350	7	7	84	20	75	120	35	25	25				10		584		44
East St. Louis	Am	572			572	4	4	102	18	100	150	25	15	50				15	20	498	74	
Galesburg	Col	646			546	4	4	84	30	30	130	75	30	70	5			20	25	524	22	
Jacksonville	Am	620			620	2	2	120	40	54	156	75			5			30	50	550	70	
		728			728	5	5		40		230	150			12			15	40	501	227	
		780			780	3	3	120	40		240	150			8			5	100	675	105	
Mattoon		420			420	5	5		30	150	250	100	25	20	12			15		602		182
Moline		600			600	5	5	72	40	65	200	100		8	10			20	40	558	42	
	Col	468			468	3	3	96	40	00	130	75	20	11	10			15	15	472		4
Pontiac	Ger	480			480	2	2	36	35	65	160	35	15	50	15				15	425	54	
		420			620	2	2	40	40	125	325	35	40	60	15			40	25	705		85
	Am	900			900	3	3	108	60	125	250	60	35	75	20			25	100	808	12	
Sterling		600			600	7	7	150	50	75	100	75	40	25	10			15	5	545	55	
Totals	18	10,192	\$100	\$200	10,492	65	75	\$1,476	\$454	\$1,357	\$3,888	\$1,945	\$380	\$649	\$166	\$76	\$3	\$304	\$527	10,275	\$953	\$736
Averages		566 22			582 88	3.67	4.16	98 40	36 33	90 47	188 22	74 73	25 38	46 36	9 78			1 67	29 29	540 83	79 00	123 00

BAGGAGEMEN.

Champaign.....	Am.....	\$420	\$280	.....	\$120	4	4	\$84	\$28	.....	\$168	\$90	.....	\$35	.....	\$25	\$5	.....	\$150	.....	\$5
East St. Louis....	..	720	.....	.....	1,400	3	6	204	40	\$140	180	25	.....	18	.....	40	7	.....	718	.....	.....
.....	.....	480	.....	.....	480	3	3	120	20	52	84	40	.....	24	.....	.....	3	.....	401	.....	.....
Gardner.....	Irish.....	480	.....	.....	480	5	6	.....	54	57	148	60	.....	.....	.....	60	6	.....	414	.....	.....
Springfield.....	Am.....	600	.....	.....	600	6	3	.....	35	100	240	50	.....	37	.....	36	8	.....	506	.....	.....
Total.....	5	\$2,700	\$280	.....	\$2,980	21	19	\$408	\$177	\$349	\$915	\$265	.....	\$114	\$161	.....	\$29	.....	\$2,464	\$321	\$5
Averages.....	.....	510	.....	.....	596	4.2	3.8	136	35 40	87 25	163	53	.....	28 50	40 25	.....	5 80	.....	11 492 80	130	.....

BOILERMAKERS.

Aurora.....	Scotch.....	\$780	.....	\$120	\$900	6	7	.....	\$75	\$90	\$225	\$75	.....	\$50	\$100	\$10	.....	\$40	\$25	\$690	\$210	.....
.....	Ger.....	900	.....	.....	900	6	8	.....	70	100	175	75	.....	85	125	20	.....	20	15	705	195	.....
Champaign.....	Am.....	468	.....	.....	468	2	4	\$120	30	.....	130	45	.....	18	25	.....	.....	.....	10	389	79	.....
Danville.....	Ger.....	720	.....	.....	720	6	2	84	40	.....	200	200	.....	.....	100	6	.....	10	.....	640	80	.....
East St. Louis....	Scotch.....	876	.....	540	1,416	10	6	.....	30	120	480	50	.....	.....	100	5	.....	50	.....	898	518	.....
.....	.....	690	.....	.....	690	5	5	.....	35	50	160	100	.....	15	90	10	.....	40	.....	670	110	.....
Galesburg.....	Irish.....	600	.....	.....	600	4	3	.....	30	.....	175	.....	.....	.....	75	5	.....	.....	50	407	193	.....
Peoria.....	.....	840	.....	.....	840	5	6	72	42	.....	360	144	.....	.....	.....	16	.....	.....	15	673	167	.....
Urbana.....	Am.....	480	.....	656	1,136	8	5	.....	25	.....	336	200	.....	.....	.....	10	.....	.....	143	714	422	.....
.....	Irish.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	9	\$6,354	.....	\$1,316	\$7,670	52	46	\$372	\$386	\$360	\$2,241	\$889	.....	\$203	\$615	\$84	.....	\$160	\$308	\$5,086	\$1,974	.....
Averages.....	706	852 22	5.77	5.11	93	42 89	90	219	111 12	40 60	87 86	9 33	17 78	34 22	631 65	219

BOILERMAKER'S HELPER.

Danville.....	Am.....	\$400	\$400	2	3	\$18	\$100	\$50	\$100	\$268	\$132
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BOOKBINDERS.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings.....	Number in family.	Number of rooms occupied.	ANNUAL EXPENDITURES FOR—												Total expenses....	Surplus	Debt.....					
		Husband ..	Wife.....	Children...				Rent.	Fuel.....	Meat.	Groceries....	Clothing	Boots and shoes	Dry goods...	Books	Life insur- ance.....	Trade unions	Sickness.....	Sundries.....								
Champaign.....	Am.....	\$936	.....	\$100	\$1,036	8	6	\$60	\$60	48	\$160	\$336	\$275	100	\$30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chicago.....	..	750	.....	.....	750	2	4	120	.....	.....	.....	150	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals....	2	\$1,686	.....	\$100	\$1,786	10	10	\$180	\$108	\$160	\$486	\$375	\$30	\$70	\$30	\$70	\$14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Averages .....	.....	843	.....	.....	893	5	5	90	54	160	243	187	50	70	30	70	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

BLACKSMITHS.

Alton.....	Ger.....	\$444	\$444	4	4	\$20	\$80	\$140	\$60	\$20	\$15	\$2	\$20	\$382	\$62
.....	Am.....	610	.....	.....	610	4	4	\$96	25	52	200	135	17	.....	.....	3	.....	.....	20	608	2	.....
Aurora.....	Eng.....	718	.....	.....	718	5	6	120	55	100	175	35	20	45	.....	15	.....	.....	50	665	53	.....
.....	Irish.....	825	.....	.....	825	9	8	.....	65	144	240	45	40	100	.....	24	.....	.....	25	715	110	.....
Belleville.....	Ger.....	576	.....	.....	576	7	2	.....	20	39	156	25	30	30	.....	4	.....	.....	20	482	94	.....
.....	.....	405	.....	.....	405	3	3	.....	18	75	82	65	30	10	.....	15	.....	.....	40	427	.....	\$22
Bloomington.....	Am.....	600	.....	.....	600	2	3	.....	25	80	150	30	15	35	.....	10	.....	.....	.....	386	264	.....
.....	.....	600	.....	.....	600	8	5	.....	35	80	160	30	30	50	.....	7	.....	.....	.....	524	76	.....
.....	.....	600	.....	.....	600	2	3	.....	50	50	240	20	12	15	.....	6	.....	.....	.....	400	300	.....
.....	.....	600	.....	.....	600	4	4	.....	54	50	280	80	20	40	.....	8	.....	.....	.....	563	538	.....
.....	Ger.....	700	.....	.....	700	4	4	.....	35	50	125	40	35	50	.....	9	.....	.....	.....	430	270	.....
Carlinville.....	Irish.....	600	.....	.....	600	4	5	.....	20	80	240	30	30	150	.....	10	.....	.....	.....	570	30	.....
.....	Am.....	750	.....	.....	750	3	3	.....	30	.....	300	40	.....	70	.....	.....	.....	.....	30	470	280	.....
.....	.....	1,000	.....	.....	1,000	9	7	.....	60	70	230	100	50	200	.....	5	.....	.....	50	927	673	.....
Centralla.....	Ger.....	600	.....	.....	600	4	4	.....	36	60	180	75	25	100	.....	5	.....	.....	75	596	4	.....
.....	.....	393	.....	.....	393	7	4	.....	36	.....	120	100	25	.....	.....	3	.....	.....	24	358	35	.....
Champaign.....	Am.....	624	.....	.....	624	2	6	.....	25	.....	200	75	.....	.....	.....	6	.....	.....	96	417	207	.....
.....	.....	600	.....	.....	600	5	7	.....	60	110	250	100	50	.....	.....	.....	.....	.....	.....	825	.....	25
.....	Ger.....	702	.....	.....	702	3	5	.....	42	.....	182	55	22	35	.....	10	.....	.....	9	509	193	.....
.....	Eng.....	660	.....	.....	660	4	8	.....	36	.....	286	125	.....	.....	.....	.....	.....	.....	.....	662	.....	2
.....	Am.....	408	.....	.....	408	4	6	.....	30	.....	364	35	20	40	.....	5	.....	.....	.....	689	.....	281
Chicago.....	.....	864	.....	.....	864	5	6	.....	36	.....	346	210	.....	.....	.....	.....	.....	.....	.....	796	68	.....

[illegible]

Blacksmiths—Continued.

Place.	Nationality	ANNUAL EARN- INGS OF—			Total earnings.....	Number in family	Number of rooms occupied	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.....		
		Husband ..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries...	Clothing....	Boots and shoes	Dry goods...	Books.....	Life insur- ance	Trade unions	Sickness....				Sundries....	
Urbana.....	Am.....	\$380	.....	\$198	\$234	6	4	.....	\$37	.....	\$208	\$95	.....	.....	\$25	\$10	.....	.....	\$14	\$419	\$189	.....	\$963
".....	".....	440	.....	485	485	5	5	\$69	42	.....	208	55	\$55	.....	12	.....	.....	.....	5	480	5	.....
".....	Irish.....	780	.....	700	700	3	5	.....	174	.....	156	106	.....	.....	.....	.....	.....	75	20	397	363	.....
".....	Ger.....	300	.....	408	408	3	4	.....	85	.....	208	80	.....	.....	5	.....	.....	.....	48	376	32	.....
".....	".....	618	.....	648	648	5	5	.....	50	.....	363	140	.....	.....	15	.....	.....	.....	40	594	51	.....
Totals.....	75	46,676	\$1,200	\$2,833	50,709	350	347	\$1,637	\$2,735	\$3,783	15,115	\$6,215	\$1,420	\$2,077	\$635	\$24	\$73	\$1,464	\$2,031	40,488	11,074		\$963
Average....	.....	623 55	.....	676 12	.....	4 68	4 62	107 60	36 46	72 94	201 53	82 87	26 79	41 54	9 47	.....	.....	19 33	27 89	539 97	\$180		28

BLACKSMITHS' HELPERS.

Elgin.....	Ger.....	\$504	.....	.....	4	2	.....	\$40	.....	\$150	\$50	.....	.....	\$20	.....	.....	.....	\$39	\$100	\$504	.....	.....
Moline.....	Scot.....	460	.....	.....	4	3	.....	30	.....	150	60	.....	.....	8	.....	.....	.....	25	15	351	\$109	.....
".....	".....	500	.....	.....	4	5	.....	30	.....	200	45	.....	.....	8	.....	.....	.....	25	75	480	20	.....
Peoria.....	Irish.....	520	.....	.....	4	4	.....	40	.....	208	45	.....	.....	10	.....	.....	.....	25	60	428	92	.....
Urbana.....	".....	450	.....	.....	5	3	.....	42	.....	264	75	.....	.....	3	.....	.....	.....	30	32	446	53	.....
".....	Ger.....	364	.....	.....	5	3	\$60	52	.....	144	90	.....	.....	4	.....	.....	.....	.....	21	361	13	.....
".....	Am.....	449	.....	.....	5	4	.....	40	.....	216	127	.....	.....	15	.....	.....	.....	.....	21	419	30	.....
Totals.....	7	\$5,290	.....	\$3,236	31	29	\$60	\$254	\$335	\$1,832	\$483	\$79	\$16	\$63	.....	.....	.....	\$114	\$314	\$2,979	\$318	.....
Averages.....	.....	470 86	.....	470 86	4 45	4 14	60	36 30	78 33	190 30	68 86	19 76	11 59	9	.....	.....	.....	23 80	44 85	435 57	53	.....

BRAKEMEN.

Aurora.....	Am.....	\$540	2	5	\$120	\$60	\$60	\$144	\$20	\$15	\$10	\$5	\$12		\$5	\$50	\$531	\$9	.....
Galesburg	Ger.....	499	3	4	84	28	28	105	80	25	60	5	.....	.....	15	35	462	37	.....
Joliet.....	Irish.....	360	10	3	60	20	20	360	50	15	30	20	.....	.....	5	.....	285	.....	\$225
.....	.....	484	4	5	.....	70	70	225	35	23	28	15	7	.....	.....	25	468	16	.....
Rock Island.....	Am.....	660	3	4	78	40	40	175	135	.....	5	.....	36	.....	.....	15	514	146	.....
Totals.....	5	\$2,543	22	21	\$312	\$180	\$218	\$1,009	\$320	\$78	\$163	\$45	\$55	.....	\$25	\$125	\$2,560	\$208	\$225
Averages .....	.....	508 60	4.4	4.2	85 50	36	43 60	201 80	14	19 50	32 60	9	.....	.....	5	25	512	41	225

BOOK-KEEPERS.

Danville	Am.....	\$500	3	2	.....	\$50	\$20	\$150	\$100	.....	\$100	\$20	.....	.....	\$10	.....	\$450	\$50	.....
Elgin.....	.....	660	4	7	.....	70	100	200	125	.....	.....	20	.....	.....	.....	\$145	660	.....	.....
Freeport.....	Ger.....	1,200	2	6	.....	68	80	140	150	.....	50	15	.....	.....	40	75	648	552	.....
Pontiac.....	Irish.....	1,000	5	7	.....	45	50	180	30	25	75	100	\$15	.....	5	25	550	450	.....
Springfield	Am.....	900	5	4	.....	40	100	300	150	20	150	10	.....	.....	10	150	980	495	.....
Totals.....	5	\$4,260	19	26	.....	\$273	\$359	\$970	\$535	\$75	\$375	\$165	\$15	.....	\$65	\$395	\$3,238	\$1,517	.....
Averages .....	.....	852	3 8	5.2	.....	54 60	70	194	111	25	93 75	33	.....	.....	13	79	647 60	387	.....

BRASS WORKERS.

Chicago.....	Am.....	\$750	3	4	\$156	\$10	\$83	\$200	\$75	\$18	\$28	.....	.....	.....	.....	.....	\$600	\$150	.....
Danville	Ger.....	700	5	2	.....	40	.....	200	100	.....	100	\$6	.....	.....	\$20	.....	406	234	.....
Moline.....	Am.....	780	2	5	78	35	60	150	75	18	9	6	.....	.....	.....	\$30	461	319	.....
Peoria.....	.....	750	5	4	96	13	40	150	130	30	80	10	.....	.....	10	25	557	163	.....
.....	.....	512	6	4	96	30	60	130	60	40	50	10	.....	.....	5	15	501	11	.....
.....	.....	392	4	3	84	16	35	90	35	20	40	5	.....	.....	.....	10	335	57	.....
Totals.....	6	\$3,884	25	22	\$510	\$174	\$278	\$920	\$475	\$126	\$307	\$37	.....	.....	\$35	\$80	\$2,950	\$934	.....
Averages .....	.....	647 33	4.16	3.66	102	29	55 60	153 33	79 16	25 20	51 16	6 16	.....	.....	5 83	13 33	491 66	155	.....

BREWERS.

PLACE.	Nationality	ANNUAL EARNINGS OF—			ANNUAL EXPENDITURES FOR—												Total earnings.....	Number in family..	Number of rooms occupied.....	Total expenses	Surplus.....	Debt.....
		Husband ..	Wife	Children...	Rent	Fuel.....	Meat	Groceries....	Clothing.....	Boots and shoes.....	Dry goods...	Books.....	Life insur- ance.....	Trade unions	Sickness.....	Sundries.....						
Belleville	Ger.....	\$480	.....	.....	\$108	\$16	\$65	\$125	\$25	\$30	\$40	\$5	.....	.....	\$30	\$20	\$464	\$16	.....		
..	..	1,320	.....	.....	.....	25	219	300	100	75	30	10	\$30	.....	50	75	914	406	.....		
..	..	660	.....	.....	96	15	75	125	50	.....	25	5	.....	.....	50	25	466	194	.....		
Danville .....	..	144	.....	.....	72	20	.....	70	30	10	6	5	.....	.....	.....	10	223	.....	\$79
..	..	600	.....	.....	96	.....	.....	150	100	.....	100	10	.....	.....	30	.....	486	114	.....		
Totals.....	5	\$3,204	.....	.....	\$372	\$76	\$359	\$770	\$305	\$115	\$201	\$35	\$30	.....	\$160	\$130	\$2,553	\$730	\$79
Averages...	.....	640 80	.....	.....	93	19	119 66	154	6	38 33	40 20	7	.....	32	26 50	510 60	146	.....	.....	

BRICKLAYERS.

Alton.....	Am.....	\$630	.....	.....	\$82	\$24	\$90	\$180	\$60	\$30	\$20	\$7	.....	.....	\$15	\$40	\$548	\$82	.....	.....
Aurora.....	".....	546	.....	.....	72	45	75	144	52	20	30	5	.....	.....	10	30	483	63	.....	.....
".....	".....	720	.....	.....	.....	55	84	200	40	20	50	15	.....	.....	15	50	529	191	.....	.....
".....	".....	720	.....	.....	.....	60	65	150	30	25	150	15	.....	.....	50	83	628	92	.....	.....
".....	Irish.....	468	.....	\$900	.....	50	180	300	50	18	40	12	.....	.....	5	5	660	108	.....	.....
".....	".....	654	.....	.....	.....	48	120	300	35	20	50	10	.....	.....	25	50	658	.....	\$4	.....
".....	".....	468	.....	.....	.....	35	60	125	25	40	20	5	.....	.....	50	50	980	88	.....	.....
".....	".....	634	.....	.....	.....	50	85	180	75	40	35	18	.....	.....	50	25	533	101	.....	.....
Belleville.....	Am.....	396	.....	.....	.....	10	50	50	50	.....	.....	10	.....	.....	25	25	206	191	.....	.....
Bloomington.....	Ger.....	700	.....	.....	.....	30	90	200	50	.....	.....	8	.....	.....	30	.....	423	277	.....	.....
Champaign.....	Am.....	784	.....	.....	.....	35	.....	182	90	.....	.....	7	.....	.....	3	.....	340	444	.....	.....
".....	".....	576	\$100	.....	.....	30	.....	364	180	.....	.....	5	.....	.....	35	56	670	6	.....	.....
".....	".....	648	130	.....	.....	42	.....	156	25	12	9	1	.....	.....	.....	11	256	522	.....	.....
Chicago.....	Irish.....	700	.....	.....	.....	30	75	275	40	30	50	14	.....	.....	40	20	697	3	.....	.....
".....	".....	640	.....	.....	120	40	125	300	75	25	.....	12	.....	.....	.....	50	774	.....	134	.....
".....	".....	800	.....	.....	144	40	100	325	50	40	.....	.....	.....	.....	.....	20	804	.....	4	.....
".....	Eng.....	700	.....	.....	120	40	100	225	50	30	30	6	.....	.....	20	40	700	.....	.....	.....
".....	".....	720	.....	.....	156	40	200	150	60	35	35	5	.....	.....	10	12	700	20	.....	.....
".....	".....	750	.....	.....	144	65	150	200	100	40	50	15	.....	.....	45	35	710	40	.....	.....

Chicago	Am.	720	.....	722	7	5	150	40	.....	200	.....	.....	.....	15	.....	5	25	50	720	.....
"	"	600	.....	600	2	4	192	40	.....	100	.....	.....	.....	8	.....	6	10	60	600	.....
"	"	700	.....	700	3	3	120	30	.....	100	.....	40	.....	15	20	1	100	.....	876	76
"	"	1,050	.....	1,050	7	4	144	50	156	100	.....	50	.....	15	.....	3	10	122	1,050	.....
"	"	744	.....	744	4	5	192	60	73	85	.....	30	.....	10	.....	3	10	20	740	.....
"	"	500	.....	1,420	7	6	.....	150	200	300	.....	60	.....	20	.....	5	.....	.....	1,135	285
Danville	Irish	725	.....	725	4	4	.....	40	100	75	.....	40	.....	12	.....	3	20	100	715	10
"	Am.	648	.....	648	6	5	96	30	100	50	.....	20	.....	10	.....	4	.....	.....	490	158
"	Eng.	720	.....	720	3	4	78	20	75	50	.....	20	.....	10	.....	.....	15	.....	398	322
"	"	540	.....	540	2	2	.....	10	40	20	.....	10	.....	10	.....	.....	10	.....	175	965
"	Irish	450	.....	450	5	4	.....	24	60	30	.....	20	.....	5	.....	2	.....	.....	321	129
"	Ger.	300	.....	300	5	2	.....	20	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	155	145
DuQuoin	Eng.	650	.....	740	7	5	.....	15	80	75	.....	40	.....	5	.....	.....	12	50	577	163
Freeport	Am.	546	.....	836	11	9	.....	60	75	200	.....	75	.....	15	.....	.....	.....	20	795	41
Galesburg	"	678	.....	648	3	5	120	30	40	100	.....	30	.....	10	.....	.....	25	20	595	53
Jacksonville	"	800	.....	800	2	4	72	30	.....	100	.....	70	.....	7	.....	.....	25	50	534	266
"	"	468	.....	468	5	3	66	20	.....	60	.....	.....	.....	28	.....	18	15	25	381	87
Joliet	Scotch	714	.....	714	4	6	.....	60	75	200	.....	26	.....	.....	.....	.....	15	145	609	105
Mattoon	Am.	420	.....	840	5	5	.....	35	104	80	.....	20	.....	15	.....	.....	5	20	554	286
Moline	"	648	.....	648	3	4	.....	75	65	75	.....	7	.....	5	14	25	.....	50	586	62
"	"	600	.....	600	6	7	.....	40	65	100	.....	15	.....	5	20	.....	150	25	755	155
"	"	900	.....	900	4	4	72	30	60	75	.....	8	.....	10	.....	.....	200	50	723	177
Peoria	"	672	.....	1,036	4	4	132	35	.....	65	.....	25	.....	15	.....	.....	.....	50	572	464
Rock Island	Eng.	528	.....	528	5	4	.....	23	52	50	.....	50	.....	5	20	4	.....	62	514	14
"	Irish	720	.....	720	4	4	96	25	60	65	.....	7	.....	10	.....	.....	15	50	546	174
Sterling	"	525	.....	725	6	5	.....	45	100	75	.....	50	.....	10	.....	6	10	10	506	219
Urbana	Am.	540	.....	558	8	5	.....	56	.....	400	.....	.....	.....	21	.....	.....	493	7	1,289	731
Totals	46	\$29,330	\$248	\$32,162	196	209	\$2,370	\$1,867	\$3,255	\$9,726	\$3,792	\$1,113	\$1,056	\$463	\$74	\$118	\$1,582	\$1,611	\$27,637	\$4,525	1204
Averages		637 60	699 17	4.26	4.54	118 50	40 59	70 76	211 43	82 43	30 08	45 02	10 06	34 39	35 02	600 80	125	200

BRICKMAKERS.

Alton	Eng.	\$444	.....	\$111	6	4	\$72	\$25	\$85	\$190	\$40	\$32	\$15	\$5	.....	.....	\$16	\$40	\$510	\$45	.....
Chicago	Irish	408	.....	.....	3	2	72	25	.....	260	150	.....	.....	.....	.....	.....	.....	.....	510	.....	\$42
Freeport	Am.	288	.....	80	6	6	.....	45	75	120	50	60	40	.....	.....	.....	13	.....	403	.....	35
Galesburg	"	622	.....	.....	3	4	96	35	35	110	90	20	100	10	.....	.....	30	25	551	71	.....
Pekin	"	262	.....	45	3	7	.....	20	25	144	16	.....	.....	.....	.....	.....	25	5	235	72	.....
Totals	5	\$2,084	\$45	\$191	21	23	\$240	\$150	\$220	\$824	\$346	\$102	\$155	\$15	.....	.....	\$84	\$70	\$2,209	\$188	\$77
Averages		416 80	.....	.....	4.4	4.6	80	30	55	164 80	69 20	34	51 66	3	.....	.....	16 80	14	441 80	37	38

BRIDGE BUILDERS.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.....	
		Husband ..	Wife	Children ..				Rent	Fuel	Meat.....	Groceries ...	Clothing.....	Boots and shoes.....	Dry goods...	Books	Life insurance.....	Trade unions	Sickness				Sundries
East St. Louis...	Am.....	\$1,080	.....	.....	\$1,080	5	3	.....	\$12	\$45	\$240	\$125	\$35	\$50	\$25	\$8	.....	\$15	\$25	\$580	\$540	.....
Elgin.....	Scan.....	780	.....	.....	1,180	6	6	.....	60	130	260	190	45	120	10	.....	.....	.....	15	830	350	.....
Peoria.....	.....	702	.....	.....	702	4	3	.....	35	.....	175	30	15	15	.....	.....	.....	75	25	370	332	.....
Rock Island.....	Am.....	600	.....	.....	600	2	3	\$48	30	65	150	75	15	6	10	.....	.....	.....	50	449	151	.....
.....	.....	525	.....	.....	525	4	4	72	30	75	200	50	25	7	5	.....	.....	100	25	539	.....	\$64
Totals.....	5	\$3,687	.....	.....	\$4,087	21	19	\$120	\$167	\$315	\$1,025	\$470	\$130	\$198	\$50	\$8	.....	\$190	\$140	\$2,818	\$1,333	\$64
Averages .....	.....	737 40	.....	.....	817 40	4 2	4 8	60	33 40	78 75	205	94	26	39 60	10	.....	.....	18	28	562 60	333	.....

BRIDGE TENDERS.

Peoria	Irish.....	\$540	.....	.....	\$480	6	6	.....	\$60	.....	\$225	\$70	\$25	\$25	\$15	.....	.....	\$25	\$50	\$485	\$535	.....
.....	.....	540	.....	.....	.....	5	4	.....	48	\$109	216	30	40	60	12	.....	.....	.....	.....	515	25	.....
Totals.....	2	\$1,080	.....	.....	\$1,560	11	10	.....	\$98	\$109	\$441	\$100	\$65	\$85	\$27	.....	.....	\$25	\$50	\$1,000	\$560	.....
Averages .....	.....	540	.....	.....	780	5 5	5	.....	49	54 50	220 50	50	32 50	42 50	13 50	.....	.....	12 50	\$25	500	280	.....

BROOM MAKERS.

Danville	Am.....	\$500	.....	.....	.....	2	2	\$72	\$50	.....	\$140	\$40	.....	\$50	\$6	.....	.....	\$10	.....	\$368	\$132	.....
Galesburg .....	.....	525	.....	.....	525	2	4	96	28	\$30	115	80	.....	45	6	\$20	.....	.....	.....	465	60	.....
Mattoon .....	.....	780	.....	.....	780	3	4	.....	30	55	105	30	.....	.....	4	.....	.....	.....	.....	224	556	.....
Totals.....	3	\$1,805	.....	.....	\$1,805	7	10	\$168	\$108	\$85	\$360	\$150	\$20	\$95	\$16	\$20	.....	\$10	\$25	\$1,057	\$748	.....
Averages .....	.....	601 66	.....	.....	601 66	2 33	3 33	84	36	42 50	120	50	20	47 50	5 33	.....	.....	3 33	8 33	352 33	249	.....

BURNISHER.

Aurora.....	Am.....	\$450	\$1,286	\$365	\$2,111	5	8	\$238	\$118	\$360	\$900	\$60	\$23	\$10	\$5	\$20	\$75	\$1,829	\$282
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BUTCHERS.

Carlisle.....	Am.....	\$500	7	3	\$40	\$50	\$250	\$25	\$25	\$25	\$50	\$35	\$500	
..	Ger.	245	6	2	15	125	100	5	245	
Centralia.....	Am.....	100	\$75	\$25	.....	8	4	\$36	20	.....	100	40	.....	.....	.....	.....	.....	.....	196	\$4	.....
Chicago.....	Scotch	600	.....	.....	.....	4	6	120	30	.....	120	50	75	.....	.....	.....	.....	25	447	153	.....
..	Bohemian	378	.....	.....	.....	2	3	84	24	.....	150	150	.....	.....	.....	.....	.....	.....	453	.....	\$55
..	Ger.	480	.....	.....	.....	7	4	144	17	.....	220	75	.....	.....	.....	.....	.....	13	480	.....	.....
..	..	480	.....	.....	.....	5	3	120	15	.....	150	75	.....	.....	.....	.....	.....	107	480	.....	.....
..	Scan	420	.....	.....	.....	4	3	72	12	.....	50	80	.....	.....	.....	.....	.....	206	420	.....	.....
..	Ger.	600	.....	.....	.....	7	4	156	17	.....	384	100	.....	.....	.....	.....	.....	75	740	.....	140
..	..	480	.....	.....	.....	3	3	144	13	.....	192	100	.....	.....	.....	.....	.....	.....	495	.....	15
..	Irish	480	.....	.....	.....	7	4	144	12	.....	200	50	.....	.....	.....	.....	.....	70	491	.....	11
..	..	480	.....	.....	.....	3	2	96	15	.....	100	100	.....	.....	.....	.....	.....	29	380	.....	.....
East St. Louis.....	Scan	480	.....	.....	.....	8	4	144	15	.....	100	126	.....	.....	.....	.....	.....	50	480	.....	.....
..	Eng.	624	.....	.....	.....	5	4	144	25	75	100	30	30	20	.....	.....	.....	75	524	.....	.....
..	..	692	.....	.....	.....	5	3	120	30	80	160	30	22	15	.....	.....	.....	60	502	.....	.....
Galena.....	Ger.	702	.....	.....	.....	7	3	96	30	100	250	40	30	20	.....	.....	.....	20	616	.....	.....
..	Am.	192	.....	156	.....	3	5	.....	28	25	180	75	.....	.....	.....	.....	.....	30	200	.....	.....
Galesburg.....	Am.	550	.....	.....	.....	7	5	48	28	40	180	144	.....	.....	.....	.....	.....	44	500	.....	.....
Jacksonville.....	Scan	696	.....	96	.....	4	5	.....	35	.....	160	115	80	35	.....	.....	.....	45	525	.....	.....
Joliet.....	Am.	540	.....	.....	.....	4	4	120	30	.....	150	150	.....	.....	.....	.....	.....	50	530	.....	.....
Moline.....	Ger.	480	.....	.....	.....	2	3	72	39	.....	160	15	20	10	.....	.....	.....	20	356	.....	.....
Peoria.....	Am.	720	.....	.....	.....	3	4	.....	35	50	250	65	7	20	.....	.....	.....	50	487	.....	.....
..	Ger.	450	.....	360	.....	5	4	.....	35	.....	180	80	.....	.....	.....	.....	.....	50	360	.....	.....
Pontiac.....	Am.	572	.....	.....	.....	3	4	.....	40	.....	175	85	.....	.....	.....	.....	.....	50	369	.....	.....
..	Swiss	1,020	.....	.....	.....	2	7	.....	60	10	150	40	75	28	.....	.....	.....	25	578	.....	.....
Sterling.....	Am.	432	.....	465	.....	11	5	.....	40	75	300	75	60	65	.....	.....	.....	175	738	.....	.....
..	..	600	.....	.....	.....	5	5	96	50	.....	100	50	30	40	.....	.....	.....	8	479	.....	.....
Totals.....	27	\$13,897	\$75	\$1,102	\$15,074	137	106	\$1,956	\$749	\$645	\$4,556	\$2,015	\$298	\$454	\$129	\$55	\$12	\$505	\$1,317	\$12,691	\$2,604	\$221
Averages.....	514 70	558 30	5.07	3.92	108 66	27 74	71 66	168 74	74 63	27 09	41 27	4 77	18 70	48 74	469 92	153	55

CABINET MAKERS.

PLACE.	Nationality.....	ANNUAL EARNINGS OF—			Total earnings.....	Number in family..	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus.....	Debt.....
		Husband..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries...	Clothing...	Boots and shoes.....	Dry goods..	Books.....	Life insurance.....	Trade unions	Sickness.....	Sundries....	
Aurora.....	Am.	\$562			\$562	3	8		\$60	\$65	\$15	\$45	\$20	\$40	\$24	98	10	\$30	\$70	\$429
".....	Ger.	690			690	7	7		60	60	150	25	12	50	9	18		20	50	474
Champaign.....	Am.	619			619	6	6		50	60	166	40	20	75	16	18		35	50	519
Chicago.....	Ger.	420			420	3	3	\$40	28		180	100			3			5	65	417
".....	Am.	545		\$126	702	3	4	84	20		210	100			13		12		15	411
".....	Ger.	702			702	4	4	120	35	91	105	50	20	10	8			50	75	576
".....	Scan.	375	\$250		625	4	2	84	50		200	75	16	25	10			85	70	625
Galena.....	Ger.	396			396	6	4	60	30		150	55			4			8	45	350
".....	"	288			288	3	7		30	48	96	60			3				60	306
".....	"	284		150	434	3	3		26	56	144	75			3				65	370
".....	"	390		324	714	6	5		36	60	160	160			2			10	82	500
Joliet.....	Irish	156		175	331	5	6		28	70	130	60	25	25	5				8	331
".....	Am.	624			624	3	7	180	50	50	190	50	25	50	10	15		12	12	644
".....	"	696			696	4	7		50	60	185	50	25	50	10	15		25	59	620
Sterling.....	Scan.	480		20	500	8	11		50	75	200	40	40	25	5			10	5	450
Totals.....	15	\$5,992	\$250	\$794	\$8,036	58	83	\$564	\$603	\$675	\$2,591	\$975	\$202	\$350	\$128	\$76	\$22	\$241	\$730	\$6,952
Averages.....		466 13			535 73	3.87	5.53	94 00	40 20	61 36	169 40	65 00	23 44	38 88	8 20			16 07	48 70	463 46

CAGER.

Streator.....	Am.....	\$755		\$360	\$1,115	6	5		\$70	\$96	\$300	\$175	\$60		\$12	\$6	\$8	\$45	\$96	\$883	\$247	
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CALCIMINER.

Centralla.....	Colored...	\$163			\$163	2	3		\$35	\$25	\$210	\$75	\$15	\$25	\$19			\$15	\$30	\$410	\$28	
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CALLER.

Aurora.....	Welch.....	\$468	\$168	2	6	\$60	\$84	\$240	\$20	\$25	\$50	\$20	\$499	\$31
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CAR BUILDERS.

Aurora.....	Eng.	\$630	\$630	6	7	\$120	\$60	\$72	\$15	\$40	\$20	\$30	\$10	\$12	\$10	\$25	\$414	\$216
..	Am.	504	504	2	6	72	70	48	150	35	10	25	25	25	467	37	
Chicago.....	.....	410	.....	.....	.....	450	8	4	144	48	.....	150	40	33	17	20	.....	.....	36	498	.....	\$48
..	Irish ..	410	.....	.....	.....	410	6	5	144	48	.....	120	35	36	15	4	.....	.....	30	477	.....	67
..	Am.	540	.....	.....	.....	540	6	5	168	50	72	175	50	.....	5	5	.....	.....	10	540	.....	.....
Totals.....	5	\$2,494	\$2,531	28	27	\$648	\$276	\$192	\$610	\$200	\$104	\$92	\$31	\$12	\$105	\$126	\$2,396	\$253	\$115
Averages	496 80	506 80	5.6	5.4	129 60	55 20	64	122	40	66	18 40	6 20	21	25 20	479 20	126	57

CAR INSPECTORS.

East St. Lous.....	Am.	\$700	.....	.....	.....	\$700	5	4	\$141	\$18	\$60	\$185	\$10	\$20	\$35	\$10	.....	\$8	\$10	\$25	\$555	\$145	.....
..	..	720	.....	.....	.....	720	2	4	132	18	70	144	50	15	50	8	.....	.....	.....	50	537	183	.....
..	Irish ..	600	.....	.....	.....	750	4	3	96	15	75	200	50	20	50	12	.....	.....	20	50	623	127	.....
Arbana	Am.	495	.....	.....	.....	495	3	2	72	15	70	125	30	15	35	6	.....	.....	20	25	413	82	.....
Totals.....	6	593	.....	.....	.....	593	3	4	.....	30	.....	216	125	.....	.....	7	.....	1	30	135	553	.....
Averages		593	.....	.....	.....	593	8	5	96	40	.....	312	200	.....	.....	6	.....	.....	.....	.....	654	.....	\$61
		\$3,691	.....	.....	.....	\$3,841	25	22	\$540	\$136	\$275	\$1,182	\$195	\$70	\$170	\$19	\$44	\$9	\$80	\$285	\$3,335	\$537	\$61
		615 16	.....	.....	.....	640 16	4.16	3.66	108	22 66	63 75	197	82 50	17 50	42 50	8 16	.....	.....	13 33	44 16	555 83	134	.....

CAR PAINTERS.

Chicago.....	Am.	\$435	.....	.....	.....	\$435	6	3	\$96	\$30	.....	\$170	\$90	.....	.....	\$5	.....	.....	\$20	\$14	\$455	.....	\$20
Galesburg.....	..	575	.....	.....	.....	575	3	4	96	28	\$30	140	90	\$30	\$80	8	.....	.....	10	40	552	\$23	.....
Totals.....	2	\$1,010	.....	.....	.....	\$1,010	9	7	\$192	\$58	\$30	\$310	\$180	\$30	\$90	\$13	.....	.....	\$30	\$84	\$1,007	\$23	\$20
Averages		505	.....	.....	.....	505	4.5	3.5	96	29	.....	155	90	.....	.....	6 50	.....	.....	15	42	503 50	.....	.....

CAR REPAIRERS.

PLACE.	Nationality.....	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus.....	Debt.....		
		Husband ..	Wife	Children ..				Rent.....	Fuel.....	Meat.....	Groceries ...	Clothing	Boots and shoes.....	Dry goods..	Books.	Life insur- ance.....	Trade unions				Sickness	Bundries
Alton.....	Am.....	\$720	.....	.....	\$720	7	4	.....	\$24	\$80	\$250	\$50	\$25	\$30	\$8	.....	.....	\$40	\$20	\$527	\$193	.....
.....	Scotch.....	780	.....	.....	780	4	4	.....	25	80	259	43	35	37	15	.....	.....	46	53	593	187	.....
Aurora.....	Am.....	386	.....	.....	386	4	7	\$162	50	48	120	50	12	20	.....	.....	15	5	10	482	\$96	.....
.....	..	576	.....	.....	576	5	7	156	50	60	150	18	15	25	10	.....	.....	5	10	499	77	.....
Champaign.....	..	420	.....	.....	420	4	5	.....	36	.....	200	25	35	55	10	\$24	.....	43	43	428	.....	8
East St. Louis.....	Irish.....	460	.....	.....	460	4	3	84	17	60	150	30	12	30	6	.....	.....	.....	10	399	61	.....
Peoria.....	..	436	.....	.....	436	5	4	.....	40	.....	216	60	35	25	15	.....	.....	25	50	466	516	.....
Rock Island.....	..	720	.....	.....	720	4	3	.....	45	75	240	65	18	7	10	.....	.....	10	10	440	240	.....
Totals.....	8	\$4,498	.....	.....	\$5,044	37	37	\$408	\$287	\$403	\$1,585	\$341	\$187	\$229	\$74	\$24	.....	\$141	\$201	\$3,874	\$1,274	\$104
Averages .....	.....	562 50	.....	.....	630 50	4.62	4.62	134	35	67 21	198 12	42 62	23 37	28 62	9 25	.....	.....	17 02	25 12	484 25	212	52

CARPENTERS.

Alton.....	Eng.....	\$825	.....	.....	\$875	10	7	\$96	\$30	\$100	\$120	\$15	\$70	\$35	\$10	\$23	.....	.....	.....	\$799	\$76	.....
..	..	383	.....	.....	413	7	4	.....	25	80	140	50	20	15	3	.....	.....	.....	\$20	373	40	.....
..	Ger.....	350	.....	.....	425	5	4	66	60	60	155	40	25	10	5	.....	.....	150	10	541	.....	\$116
..	Eng.....	780	.....	.....	1,060	4	4	.....	20	125	400	100	50	50	10	.....	.....	250	250	1,070	.....	10
Aurora.....	Scotch.....	480	.....	.....	480	5	6	.....	52	84	200	40	40	20	25	10	.....	15	15	494	.....	14
..	Am.....	420	.....	.....	420	2	3	84	82	60	120	18	10	45	2	36	.....	75	75	426	.....	6
..	..	713	.....	.....	713	6	8	.....	50	60	175	30	30	46	15	.....	.....	35	20	573	.....	.....
..	..	381	.....	.....	384	4	7	.....	48	46	120	20	18	40	5	.....	.....	25	20	349	.....	.....
..	..	480	.....	.....	480	3	5	84	60	46	150	30	19	60	12	21	.....	40	25	481	.....	4
..	..	480	.....	.....	480	2	6	.....	60	60	96	40	20	50	5	.....	.....	40	40	435	.....	.....
..	..	618	.....	.....	920	8	9	.....	55	96	360	65	40	150	18	.....	.....	20	116	920	.....	.....
..	..	655	.....	.....	855	7	7	144	65	60	312	98	35	40	10	.....	.....	10	10	704	.....	.....
..	Scotch.....	600	.....	.....	600	5	9	.....	65	45	180	50	30	75	15	14	.....	20	40	491	.....	.....
Belleville.....	Am.....	704	.....	.....	801	3	8	.....	60	70	180	100	35	80	7	20	.....	50	50	625	.....	.....
Bloomington.....	Ger.....	702	.....	.....	702	7	4	96	20	73	140	25	30	30	5	.....	.....	20	40	491	.....	.....
..	Am.....	600	.....	.....	600	2	3	72	25	75	150	25	10	25	2	.....	.....	5	50	477	.....	.....
..	..	600	.....	.....	600	4	4	.....	20	60	160	25	20	20	.....	.....	.....	10	100	832	.....	.....
Champaign.....	..	1,213	.....	.....	1,218	3	6	.....	40	.....	250	175	20	.....	15	.....	.....	25	160	665	.....	.....
..	..	520	.....	.....	520	4	7	.....	60	.....	305	87	.....	.....	8	.....	.....	.....	32	492	.....	.....

EARNINGS AND EXPENSES.

City	Am.	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
Champaign	Am.	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674</																																																																																																																																																																																																																																																																																																																																						

Carpenters—Continued.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings	Number in family.	Number of rooms occupied	ANNUAL EXPENDITURES FOR—											Total expenses	Surplus	Debt.					
		Husband..	Wife.	Children...				Rent.....	Fuel.....	Meat.....	Groceries...	Clothing.....	Boots and shoes.....	Dry goods..	Books.....	Life insurance.....	Trade unions	Sickness	Sundries....							
Joliet.....	Am.....	\$624	...	...	\$624	5	5	\$108	\$15	\$75	\$206	\$18	\$22	\$25	\$5	\$12	...	\$30	\$125	\$671	\$401	\$47		
Mattoon.....	Scot.....	702	...	...	702	4	4	96	30	52	150	50	15	...	4	...	...	...	12	301	158	...
"	Am.....	576	...	...	576	4	4	...	30	78	104	30	20	10	3	...	...	25	25	418	369	...
"	"	720	...	...	720	4	4	72	30	156	54	50	...	...	11	...	...	10	113	628	...	...		
"	"	628	...	...	628	4	4	...	40	...	200	150	35	...	8	...	...	...	20	411	515	...
"	"	576	...	\$350	926	3	3	...	40	75	144	72	40	10	10	...	...	7	...	264	236	...		
"	"	600	...	...	600	5	5	...	20	20	120	75	45	5	7	...	...	40	...	730	752	...
Moline.....	Ger.....	1,482	...	960	1,482	7	7	...	25	30	300	125	12	35	15	...	...	...	...	350	250	...
"	Am.....	600	...	190	600	4	4	72	24	75	100	50	40	6	6	...	4	...	...	841	...	1		
"	"	650	...	...	650	6	6	132	50	30	310	150	30	10	10	...	...	...	...	680	...	80
"	"	600	...	...	600	3	3	96	35	65	200	75	40	15	5	...	...	25	...	577	...	112
"	"	240	\$25	200	405	4	4	72	35	75	140	50	10	5	6	...	...	...	...	512	68	...
"	"	440	...	140	580	4	4	96	30	55	175	50	15	6	5	...	...	...	...	215	190	...
"	"	405	...	...	405	4	4	54	20	40	15	50	18	8	5	...	...	...	...	536	...	86
"	Scot.....	405	...	...	405	2	2	60	30	75	200	100	15	4	5	...	...	...	...	409	131	...
"	Ger.....	450	...	...	450	3	3	60	30	50	150	75	15	...	5	...	...	...	...	600	...	...		
"	Scot.....	540	...	...	540	3	3	60	30	50	330	37	35	...	...	25	...	...	...	461	179	...
Mt. Pulaski.....	Am.....	350	...	100	350	5	5	81	22	60	120	80	30	...	...	...	...	...	...	298	182	...
Peoria.....	Am.....	540	...	...	540	4	4	96	20	40	100	70	30	...	...	...	...	...	...	499	77	...
"	Ger.....	480	...	...	480	3	3	120	18	36	101	125	15	...	...	...	...	...	...	362	118	...
"	Am.....	480	...	96	576	5	5	96	20	70	120	40	20	...	...	...	3	...	...	448	...	16
"	"	480	...	...	480	4	4	96	30	70	150	36	20	...	...	...	...	...	...	490	...	...		
"	"	432	...	150	510	4	4	96	30	65	150	35	30	...	...	...	...	...	...	520	...	...		
"	Ger.....	540	...	480	1,120	5	5	...	40	...	250	60	40	...	...	...	...	...	...	592	500	...
"	Am.....	405	...	...	405	6	6	48	24	...	150	40	35	...	...	...	...	...	...	392	13	...
Peoria county.....	"	878	728	...	1,126	4	4	108	36	190	216	90	44	...	...	...	...	...	...	839	267	...
"	Scotch.....	432	...	...	432	4	4	96	16	50	130	60	30	...	...	...	...	...	...	430	2	...
"	Am.....	480	...	...	480	3	3	108	18	60	150	50	25	...	...	...	...	...	...	516	96	36
"	"	586	...	...	586	4	4	...	20	60	180	150	25	...	...	...	...	...	...	490	...	...		
Pontiac.....	Can.....	600	...	...	600	4	4	...	24	40	150	60	40	...	...	...	...	...	...	419	181	...
"	Am.....	850	...	...	850	5	5	...	55	45	180	30	30	...	...	...	...	...	...	503	347	...
"	"	750	...	...	750	4	4	...	45	40	160	30	20	...	...	...	...	...	...	383	367	...
"	"	660	...	...	660	7	7	...	60	45	240	40	25	...	...	...	...	...	...	625	35	...
Rock Island.....	Ger.....	450	...	...	450	6	6	...	40	75	250	200	50	...	...	...	...	...	...	600	...	210
"	Am.....	339	...	...	339	3	3	66	21	...	192	35	14	...	...	...	...	...	...	356	...	17
"	"	540	...	...	540	2	2	72	35	60	150	100	15	...	...	...	...	...	...	495	45	...

Springfield.....	Eng.....	480	.....	150	636	3	4	.....	40	100	150	50	.....	.....	.....	2	.....	7	10	60	428	209	.....
Sterling.....	Am.....	510	.....	.....	510	5	5	141	25	75	120	40	25	.....	.....	6	18	.....	5	10	502	8	.....
Streator.....	.....	192	.....	65	257	7	6	132	35	50	100	40	30	.....	.....	15	.....	.....	5	5	437	.....	180
	.....	855	.....	.....	855	4	6	.....	12	60	240	180	35	.....	.....	20	.....	.....	12	53	602	193	.....
Totals.....	111	\$61,331	\$475	\$7,612	\$69,408	492	527	\$6,153	\$4,030	\$6,266	\$20,341	\$3,286	\$2,507	\$3,311	\$995	\$153	\$34	\$2,674	\$3,988	\$59,038	\$12,637	2267	.....
Averages....	.....	552 44	.....	.....	625 29	4.43	4.75	99 24	36 30	70 40	183 25	74 65	27 55	38 58	8 97	.....	.....	24 09	35 93	532 73	179	25	.....

CARRIAGE MAKERS.

Champaign.....	Am.....	\$624	.....	\$480	\$1,104	4	7	.....	\$32	.....	\$420	\$100	\$25	\$70	\$12	.....	.....	\$15	\$221	\$305	\$299	.....
Chicago.....	.....	264	.....	.....	276	4	4	.....	42	.....	250	21	25	35	10	.....	.....	20	25	440	.....	\$164
Jacksonville.....	Ger.....	624	.....	.....	624	2	2	\$180	30	.....	250	40	10	15	5	.....	.....	.....	70	600	21	.....
Rock Island.....	Eng.....	780	.....	250	1,030	9	4	.....	40	.....	364	200	.....	.....	5	\$18	.....	50	20	697	333	.....
	.....	495	.....	.....	495	6	3	66	25	\$50	200	30	30	30	10	.....	\$1	35	6	485	10	.....
Totals.....	5	\$2,287	\$12	\$730	\$3,529	25	20	\$216	\$169	\$50	\$1,494	\$393	\$90	\$150	\$42	\$18	\$3	\$120	\$342	\$3,117	\$576	\$164
Averages..	.....	557 40	.....	.....	705 80	5.	4.	123	33 80	.....	298 80	78 60	22 50	37 50	8 40	.....	.....	30	68 40	623 40	144	.....

CARRIAGE IRONERS.

Jacksonville.....	Am.....	\$702	.....	.....	.....	.....	.....	\$96	\$40	.....	\$225	\$125	.....	.....	.....	.....	.....	\$5	\$50	\$546	\$156	.....
.....	.....	720	.....	.....	.....	.....	.....	144	40	.....	230	150	.....	.....	.....	.....	.....	20	100	604	26	.....
Totals.....	2	\$1,422	.....	.....	.....	.....	8	\$240	\$80	.....	\$155	\$275	.....	.....	.....	.....	.....	\$25	\$150	\$1,240	\$282	.....
Averages..	.....	711	.....	.....	.....	.....	4.	120	40	.....	227 50	137 50	.....	.....	.....	.....	.....	12 50	75	620	141	.....

CARRIAGE PAINTERS.

Chicago.....	Am.....	\$702	.....	.....	\$702	2	2	\$96	\$30	.....	\$250	\$75	.....	.....	\$5	.....	.....	.....	\$65	\$521	\$181	.....	.....
.....	.....	702	.....	.....	702	3	3	120	30	.....	250	50	.....	.....	5	.....	.....	.....	65	560	142	.....	.....
.....	Ger.....	614	.....	.....	650	2	2	180	30	.....	250	75	.....	.....	5	.....	.....	.....	60	600	50	.....	.....
East St. Louis...	Am.....	810	.....	.....	810	2	2	60	12	\$55	78	50	25	25	9	.....	.....	25	25	364	446	.....	.....

CIGAR MAKERS.

[illegible]

CIGAR PACKERS.

Chicago	Ger.	\$120	.....	\$50	\$170	6	7	.....	\$50	\$175	\$200	\$50	\$30	\$10	.....	\$15	\$10	.....	\$0.20	.....	\$150
.....	Am.	600	.....	200	800	6	6	.....	50	172	250	.....	35	.....	.....	.....	.....	.....	800	.....	.....
Totals.....	2	\$1,020	.....	\$750	\$1,270	12	13	\$168	\$100	\$317	\$450	\$135	\$90	\$10	.....	\$15	\$40	.....	\$1,420	.....	\$150
Averages .....	.....	510	.....	.....	635	6	6.5	.....	50	173 50	225	67 50	45	5	.....	.....	20	.....	710	.....	.....

CLERKS.

Aurora	Am.	\$600	.....	.....	.....	5	7	.....	\$50	\$60	\$240	\$10	\$15	\$50	\$20	.....	\$25	\$570	\$30	.....	.....
..	Ger.	600	.....	.....	660	4	6	\$144	50	65	100	35	15	12	15	.....	25	541	119	.....	.....
Belleville	Am.	480	.....	.....	480	3	7	.....	50	80	160	75	.....	6	20	.....	40	431	49	.....	.....
Centralla .....	.....	1,000	.....	.....	1,000	5	4	141	12	37	225	95	15	.....	17	.....	120	750	250	.....	.....
..	Eng.	600	.....	.....	600	3	5	120	35	60	144	55	40	.....	24	.....	20	553	47	.....	.....
..	Am.	600	.....	.....	600	6	5	.....	30	.....	360	50	20	.....	25	.....	25	610	.....	\$40	.....
..	.....	564	.....	.....	958	6	4	90	18	.....	216	100	24	25	10	.....	10	509	31	.....	.....
..	Eng.	1,300	.....	\$304	1,300	5	5	120	35	75	180	125	24	.....	15	.....	75	750	199	.....	.....
Champaign	Am.	420	.....	.....	420	5	7	.....	50	130	210	200	75	25	50	.....	150	1,195	105	.....	.....
..	.....	480	.....	.....	480	4	4	.....	30	25	140	50	10	.....	25	.....	.....	280	140	.....	.....
..	.....	468	.....	.....	468	4	5	.....	40	50	180	60	40	.....	.....	.....	30	480	78	.....	.....
..	.....	390	.....	.....	390	3	5	.....	30	50	150	40	25	.....	10	.....	40	390	100	.....	.....
Chicago	Can.	921	.....	.....	624	2	3	.....	35	.....	182	50	.....	.....	.....	.....	20	290	84	.....	.....
..	Am.	900	.....	.....	900	3	4	180	20	80	200	115	.....	.....	.....	.....	15	540	.....	.....	.....
..	.....	468	.....	.....	468	4	5	120	40	52	250	125	15	.....	50	.....	102	900	11	.....	.....
..	Ger.	525	.....	.....	525	2	3	108	40	.....	200	75	5	.....	25	.....	.....	457	32	.....	.....
..	Welch	1,300	.....	.....	1,300	3	4	141	40	125	250	200	.....	.....	.....	.....	100	493	202	.....	.....
Collinsville	Am.	300	.....	.....	300	3	3	104	50	.....	200	200	.....	.....	200	.....	.....	1,098	.....	184	.....
Danville .....	.....	369	.....	.....	369	7	3	.....	10	50	200	100	20	.....	10	.....	15	232	137	.....	.....
East St. Louis	Ger.	600	.....	.....	600	4	3	72	10	.....	100	200	10	.....	10	.....	.....	488	112	.....	.....
..	.....	480	.....	.....	480	5	2	60	50	.....	150	100	.....	.....	5	.....	37	383	197	.....	.....
..	Am.	600	.....	.....	600	2	3	.....	20	75	109	70	20	.....	10	.....	25	436	164	.....	.....
Elgin	Am.	840	.....	.....	840	3	3	138	12	60	200	40	20	.....	25	.....	50	672	168	.....	.....
Freeport .....	.....	312	.....	.....	312	4	4	72	30	40	192	75	15	.....	.....	.....	.....	312	.....	.....	.....
Galesburg	Eng.	600	.....	.....	600	3	3	108	60	50	100	50	25	.....	10	.....	50	503	97	.....	.....
..	Am.	550	.....	.....	550	2	5	120	60	60	100	75	25	.....	.....	.....	25	500	100	.....	.....
..	Scan	600	.....	.....	600	4	6	156	65	60	120	135	55	.....	15	.....	25	751	.....	201	.....
Moline	Am.	540	.....	.....	540	5	4	120	25	35	150	100	25	.....	.....	.....	35	600	.....	5	.....
..	.....	600	.....	.....	600	2	3	96	60	40	120	75	35	.....	40	.....	55	515	48	.....	.....
..	Ger.	360	.....	.....	360	3	3	.....	40	50	150	65	75	.....	20	.....	30	552	201	.....	.....
..	Am.	720	.....	.....	720	2	6	.....	35	52	250	75	20	.....	5	.....	15	519	191	.....	.....
..	.....	600	.....	936	336	3	5	78	50	.....	364	150	.....	10	25	.....	40	742	.....	.....	.....

Clerks—Continued.

Place.	Nationality.	ANNUAL EARNINGS OF—			Total earnings....	Number in family..	Number of rooms occupied	ANNUAL EXPENDITURES FOR—										Total expenses...	Surplus.....	Debt.....
		Husband..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries...	Clothing....	Boots and shoes.....	Dry goods.	Books.....	Life insurance.....	Trade unions	Sickness....	Sundries...	
Moline	Am.	\$500	...	...	\$500	5	5	\$150	\$50	50	\$225	\$75	25	\$25	\$25	\$25	...	\$30	\$100	\$50
Teoria	Eng.	520	...	480	1,000	5	5	100	50	...	250	75	50	35	...	10	...	75	100	474
"	Eng.	520	...	...	1,000	4	4	84	50	...	180	70	...	...	...	...	...	...	40	380
Ponlao	Am.	520	...	...	520	4	4	72	55	15	120	40	...	...	...	...	...	40	50	76
"	Am.	550	...	...	550	3	3	...	60	100	100	50	...	...	...	...	...	25	20	221
"	Am.	600	...	...	600	4	4	...	60	120	175	50	35	75	...	30	...	25	50	310
Springfield	Ger.	1,500	...	...	1,500	5	5	108	35	65	800	200	10	40	...	25	...	60	100	\$300
"	Ger.	1,200	...	...	1,200	4	4	...	40	...	180	100	...	200	...	25	...	15	137	357
"	Am.	1,200	...	...	1,200	5	5	...	50	...	300	100	...	200	...	25	...	75	50	44
"	Am.	1,000	...	...	1,000	4	4	...	30	80	250	100	40	50	...	40	...	25	150	400
Sterling	Am.	800	...	...	800	4	4	...	50	50	150	40	25	24	...	5	...	5	4	98
Totals	46	\$20,478	\$140	\$1,900	\$31,608	181	220	\$3,110	\$1,702	\$2,013	\$9,876	\$3,740	\$983	\$2,151	\$502	\$414	\$19	\$1,161	\$1,960	\$5,325
Averages		610 83			687 13	3.98	4.78	119 61	58 30	61	201 65	81 30	26 70	59 50	10 01			25 25	42 54	147

COAL MINERS.

Alma	Welsh	\$210	\$210	\$120	3	3	\$20	\$21	\$75	\$100	\$10	\$20	\$15	\$25	\$18	\$315	\$71
"	Eng.	210	300	510	5	5	81	21	90	125	40	30	20	...	...	...	30	471	30
"	"	210	210	420	4	4	72	25	70	100	30	20	10	...	...	...	20	410	10
"	"	180	180	300	3	3	60	20	70	75	30	20	10	...	...	...	30	337	23
"	"	175	175	350	3	3	60	25	75	100	35	15	15	...	...	...	20	373	...
Alton	Scotch	290	290	290	4	4	100	20	60	112	5	6	15	20	313	...
"	"	312	497	890	3	3	80	20	60	112	5	6	15	...	...	...	40	313	...
"	"	400	290	600	4	4	100	18	75	180	100	20	40	...	...	...	110	973	...
Bartonville	Irish	345	240	570	3	3	72	10	75	180	100	20	40	...	...	...	15	477	...
"	"	345	...	245	5	5	81	12	24	90	70	20	20	...	...	...	30	421	...
"	"	350	...	340	5	5	60	12	25	00	70	20	20	...	...	...	10	356	...
"	"	350	12

EARNINGS AND EXPENSES.

Bartonville	Irish Eng.	386	.....	150	486	4	3	60	10	40	110	100	90	46	5	.....	5	.....	151	451
"	"	386	.....	300	108	3	5	108	14	50	150	120	60	50	5	.....	5	.....	30	590
"	"	346	.....	.....	60	3	3	60	12	30	180	140	30	50	8	.....	8	.....	10	410
"	"	386	.....	180	72	4	4	72	14	35	120	90	40	80	10	.....	10	.....	10	479
"	"	450	.....	125	516	3	3	30	10	72	224	85	25	25	3	.....	3	.....	25	467
"	Am.	346	.....	.....	60	3	3	60	10	75	100	75	30	40	3	.....	3	.....	5	318
"	"	346	.....	.....	84	3	3	60	16	50	90	80	20	30	5	.....	5	.....	10	400
"	"	346	.....	.....	60	4	4	60	12	30	110	80	30	10	6	.....	6	.....	10	317
"	"	346	.....	.....	60	3	3	60	8	26	100	90	20	35	3	.....	3	.....	10	352
"	"	540	.....	.....	60	4	4	60	8	34	100	100	25	40	15	.....	15	.....	5	397
Belleville	Scotch	210	.....	100	310	2	2	60	20	75	100	25	10	10	.....	.....	3	.....	5	308
"	"	238	.....	.....	233	2	2	60	20	50	75	15	9	20	2	.....	2	.....	30	281
"	Can Eng.	203	.....	.....	203	2	2	60	15	30	150	10	7	10	.....	.....	3	.....	10	205
"	"	250	.....	.....	60	2	2	60	25	75	150	20	15	15	1	.....	1	.....	5	404
"	"	250	.....	370	72	2	2	72	25	50	85	65	10	30	2	.....	2	.....	25	317
"	"	225	.....	.....	108	4	4	108	25	100	150	65	40	20	5	.....	5	.....	16	242
"	"	250	.....	.....	60	2	2	60	20	100	150	15	12	10	.....	.....	3	.....	45	492
"	Am.	250	.....	.....	72	2	2	72	16	72	100	25	25	10	2	.....	2	.....	5	289
"	Ger	241	.....	.....	.....	2	2	.....	20	60	85	40	20	15	.....	.....	3	.....	5	281
"	"	225	.....	.....	.....	2	2	.....	24	75	60	10	6	10	.....	.....	3	.....	15	240
"	"	250	.....	.....	72	2	2	72	20	20	60	28	15	20	.....	.....	3	.....	5	253
Bloomington	Am.	480	.....	.....	72	4	4	72	30	20	150	25	12	20	.....	.....	5	.....	5	317
"	Eng	391	.....	450	108	5	5	108	62	10	320	150	68	40	.....	.....	5	.....	50	538
"	Irish	480	.....	300	.....	4	4	.....	50	120	200	40	40	25	2	.....	2	.....	.....	482
"	Scan.	480	.....	.....	.....	4	4	.....	40	48	140	40	15	20	7	.....	7	.....	.....	325
Carlinville	Eng.	270	.....	.....	72	4	4	72	30	70	175	40	30	20	.....	.....	4	.....	.....	456
"	Irish	525	.....	80	60	2	2	60	25	.....	100	85	.....	.....	.....	.....	.....	.....	.....	220
"	Am.	420	.....	.....	51	3	3	51	35	.....	125	100	.....	.....	.....	.....	.....	.....	.....	440
"	"	450	.....	.....	60	4	4	60	20	.....	175	125	.....	.....	.....	.....	.....	.....	.....	314
"	Eng.	315	.....	.....	60	2	2	60	20	.....	120	10	20	.....	.....	.....	.....	.....	.....	580
Caseyville	Scotch	405	.....	300	72	4	4	72	12	75	150	60	25	30	5	.....	5	.....	50	320
"	Italian	405	.....	.....	60	2	2	60	12	65	125	25	12	30	.....	.....	.....	.....	.....	551
"	Scotch	405	.....	.....	81	5	5	81	15	75	145	30	14	20	2	.....	2	.....	80	414
"	Irish	270	.....	135	84	4	4	84	10	75	160	30	25	25	.....	.....	.....	.....	25	440
Centralla	Col.	300	.....	150	84	5	5	84	10	96	180	40	15	35	.....	.....	.....	.....	10	449
"	"	350	.....	.....	84	3	3	84	10	60	144	40	15	50	.....	.....	.....	.....	35	505
Coal City	Scotch	240	.....	120	60	1	1	60	10	60	144	40	15	20	.....	.....	.....	.....	20	349
"	"	360	.....	500	60	3	3	60	42	208	340	50	25	30	10	.....	10	.....	67	806
"	"	408	.....	200	60	4	4	60	45	120	240	40	57	72	.....	.....	.....	.....	.....	684
"	Italian	285	.....	.....	60	2	2	60	40	90	156	10	8	48	3	.....	3	.....	10	432
"	"	271	.....	.....	50	4	4	50	12	30	100	65	.....	.....	.....	.....	.....	.....	20	284
"	"	395	.....	200	57	3	3	57	10	72	86	4	15	5	.....	.....	.....	.....	9	286
"	Scotch Eng.	256	.....	.....	60	3	3	60	27	.....	303	4	8	12	.....	.....	.....	.....	.....	444
"	"	436	.....	.....	60	3	3	60	25	96	264	10	18	20	8	.....	8	.....	6	456
"	Italian	327	.....	.....	60	4	4	60	30	96	180	10	18	10	3	.....	3	.....	11	436
"	Scan	353	.....	.....	60	3	3	60	12	72	120	15	19	20	.....	.....	.....	.....	85	421
Collinsville	Eng	150	.....	150	60	3	3	60	35	60	140	100	.....	.....	2	.....	2	.....	6	355
"	"	150	.....	75	60	5	5	60	10	18	20	12	15	12	.....	.....	.....	.....	15	150
"	"	150	.....	.....	60	3	3	60	12	45	45	20	10	15	.....	.....	.....	.....	50	244
"	"	150	.....	100	60	5	5	60	9	30	45	30	10	16	.....	.....	.....	.....	16	225
"	"	150	.....	.....	60	3	3	60	10	30	40	30	15	20	.....	.....	.....	.....	30	250

Coal Miners--Continued.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt.....			
		Husband ..	Wife	Children ..				Rent	Fuel	Meat.....	Groceries ...	Clothing.....	Boots and shoes	Dry goods...	Books	Life insur- ance	Trade unions				Sickness.....	Sundries	
Collinsville	Am.....	\$456			\$456	5	5	\$96	\$20	\$86	\$172	\$33	\$20	\$19	\$3				\$50	\$453	\$8		
"	"	456			456	5	5	84	15	90	120	50	30	30	5				10	443	13		
"	"	405			405	4	4		15	75	100	34	15	20	5				50	423			\$18
"	"	405			405	5	5		15	87	115	30	20	35	5				50	402	3		25
"	"	360			360	3	3	72	15	65	87	30	21	33					49	385			
"	"	315		\$315	630	4	4		20	80	150	50	25	30	3				25	433			
"	"	360			360	2	2	60	12	73	114	25	9	10					10	328			
"	"	405			405	6	6		15	72	110	25	10	10	3				25	280			
"	"	150			150	3	3	60	10	25	85	10	10	10					15	175			25
"	Welsh	354			354	3	3	60	12	75	150	25	15	20					40	397			38
"	"	576			576	7	7		30	95	175	60	30	50	5				20	470			106
"	"	480			480	4	4		25	90	140	40	20	25	2					348			132
"	Scotch	315		180	495	5	5	36	16	120	150	50	30	20						430			65
"	"	315		315	630	4	4	120	30	100	200	75	30	25	8					598			32
"	Irish	472		324	796	10	10	60	26	144	250	40	30	25						600			196
"	"	468			468	4	4		20		300	15	15	15						377			91
"	"	525			525	5	5	48	20	85	200	45	20	30	3					456			69
"	Am.....	540			540	4	4		15	100	140	35	20	30	6					351			189
"	"	405			405	3	3		20	72	100	25	12	20						264			141
"	"	432		240	672	4	4		25	80	250	40	20	30	2					464			208
"	"	468			468	6	6	60	18	100	200	50	20	25						423			45
"	"	405		300	705	4	4		22	120	300	75	40	40	3					680			25
"	"	474			474	7	7	30	20	75	250	40	25	15						470			4
"	"	405			405	4	4		25	100	150	35	15	20						355			50
"	"	545			545	4	4	54	15	85	150	40	15	25	12					426			119
"	"	348			348	3	3		25	75	150	30	20	20	6					341			7
"	Ger	400		50	500	4	4		40		150	200			10					400			100
"	Eng	336			336	2	2		15	50	75	20	8							236			100
"	"	360		360	720	7	7		25	125	250	75	35	40	15					575			145
"	Am.....	450		600	1,050	11	11		24	180	300	100	50	60	23					726			324
"	"	432			432	4	4		20	50	240	30	10	15	5					370			62
"	"	468			468	4	4		12	100	200	30	15	25	2					299			69
"	"	420		120	540	8	8	72	20	120	180	60	30	40	10					536			4
"	"	432			432	3	3	48	12		240	50								365			67
"	"	158			158	3	3		30	40	50	40	15						5	209			51

EARNINGS AND EXPENSES.

[illegible]

STATISTICS OF LABOR.

Coal Miners—Continued.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt.....		
		Husband ..	Wife	Children ..				Rent	Fuel	Meat.....	Groceries ...	Clothing.....	Boots and shoes	Dry goods...	Books	Life insur- ance	Trade unions				Sickness	Sundries
Mattoon.....	Am.....	\$788 (600)	.....	.....	\$788 (600)	8	6	\$132 120	\$30 50	\$120 125	\$260 180	\$60 100	\$25 25	.....	.....	\$15 10	\$20 8	.....	\$782 648	\$6 108	\$18
".....	Scotch Welsh.....	580	.....	.....	580	5	4	.....	25	5	240	50	20	.....	.....	5	6	\$50	412	.....	.....
Pekin.....	Scotch.....	420	.....	\$40	460	6	6	60	15	.....	220	160	.....	.....	.....	.....	.....	.....	460	84	.....
".....	".....	340	.....	535	875	9	3	60	35	.....	450	70	30	\$30	.....	.....	3	35	811	.....	.....
".....	Irish.....	325	.....	.....	325	6	3	.....	20	10	150	50	20	10	.....	.....	30	19	290	60	.....
".....	".....	312	.....	325	637	6	4	30	12	.....	192	101	.....	.....	.....	10	5	15	638	12	.....
".....	Am.....	275	.....	.....	275	3	1	60	30	45	108	40	10	.....	.....	1	.....	.....	291	21	.....
".....	Eng.....	288	.....	.....	288	3	3	60	25	60	168	30	.....	.....	2	.....	15	.....	273	2	76
".....	Irish.....	360	.....	.....	360	8	4	60	24	12	86	35	10	11	.....	5	2	.....	364	115	.....
".....	".....	600	.....	950	1,550	8	6	141	25	240	350	150	100	75	.....	5	25	.....	245	405	.....
".....	".....	468	.....	708	1,176	7	4	120	50	120	440	100	87	50	.....	20	250	.....	1,142	.....	111
".....	Am.....	346	.....	.....	346	6	4	.....	18	40	140	40	20	13	.....	4	16	12	992	31	.....
".....	".....	316	.....	.....	316	4	2	48	12	80	80	60	15	40	.....	5	10	10	310	6	106
".....	Eng.....	336	.....	.....	336	4	3	72	18	40	132	65	30	40	.....	5	10	30	412	.....	.....
".....	Ger.....	336	.....	.....	336	6	4	60	12	20	90	70	25	40	.....	8	25	15	335	1	11
".....	Irish.....	336	.....	.....	336	4	2	48	14	25	90	80	20	10	.....	5	.....	30	317	.....	4
".....	Am.....	346	.....	.....	346	5	3	72	18	30	90	30	25	50	.....	.....	.....	25	310	.....	124
".....	".....	346	.....	.....	346	8	4	96	16	25	100	85	40	60	.....	8	15	15	460	85	.....
".....	Scotch.....	336	.....	300	636	8	5	96	20	60	150	100	40	30	.....	10	15	30	551	.....	6
".....	Irish.....	336	.....	.....	336	4	3	60	14	20	80	90	20	30	.....	8	40	15	342	.....	109
".....	Am.....	336	.....	.....	336	4	3	72	16	40	100	70	25	10	.....	2	5	30	445	.....	.....
".....	Eng.....	480	.....	78	558	5	3	81	.....	35	180	100	16	25	.....	5	.....	25	449	100	.....
".....	Am.....	462	.....	.....	462	2	6	72	20	60	150	15	60	75	.....	10	.....	5	347	115	.....
Peoria County ..	Irish.....	336	.....	350	686	4	6	96	18	30	150	100	25	20	.....	10	.....	10	681	85	.....
".....	Am.....	336	.....	.....	336	7	5	96	12	50	130	80	50	10	.....	10	5	25	501	182	.....
".....	Eng.....	336	.....	.....	336	4	3	60	14	25	90	60	25	10	.....	5	15	15	327	9	.....
".....	Am.....	336	.....	.....	336	5	3	48	14	30	90	80	30	15	.....	15	5	20	347	10	11
".....	".....	336	.....	100	436	4	2	48	14	30	90	70	15	15	.....	10	15	10	317	10	.....
".....	Eng.....	336	.....	.....	336	4	3	60	12	25	110	40	20	80	.....	5	5	10	372	24	.....
".....	Irish.....	336	.....	.....	336	5	4	48	14	30	90	70	20	15	.....	5	.....	25	312	.....	.....
".....	Scotch.....	346	.....	.....	346	4	3	48	12	25	80	80	30	25	.....	20	.....	20	380	.....	44
".....	Eng.....	346	.....	100	446	6	4	48	16	35	110	80	30	25	.....	15	10	5	374	.....	98
".....	".....	346	.....	100	446	6	4	72	16	35	120	80	30	25	.....	5	.....	15	458	.....	24

EARNINGS AND EXPENSES.

[illegible]

CONDUCTORS (FREIGHT.)

PLACES.	Nationality	ANNUAL EARNINGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.....	
		Husband ..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries....	Clothing.....	Boots and shoes.	Dry goods...	Books.....	Life Insur- ance	Trade unions	Sickness				Sundries
Galesburg.....	Am.....	\$780	.....	.....	\$780	5	5	\$120	\$35	\$40	\$120	\$200	\$50	\$70	\$10	.....	.....	\$20	\$60	\$730	\$50	.....
Multon.....	.....	1,152	.....	.....	1,152	6	3	.....	25	200	200	400	25	40	10	.....	.....	50	50	1,400	152	.....
Totals.....	2	\$1,932	.....	.....	\$1,932	11	8	\$120	\$60	\$210	\$325	\$600	\$75	\$110	\$20	.....	.....	\$70	\$110	\$1,730	\$202	.....
Averages....	.....	966	.....	.....	966	5.5	4.	60	34 50	120	162 50	300	37 50	55	16	.....	.....	35	55	865	101	.....

COOPERS.

Alton.....	Scotch.....	\$360	.....	.....	\$360	5	3	\$60	\$20	.....	\$125	\$30	\$15	\$10	\$2	.....	.....	\$8	\$12	\$352	\$8	.....
..	Ger.	250	.....	\$50	250	4	2	60	18	60	115	30	10	.....	2	.....	.....	.....	6	308	46	.....
..	Am.....	321	.....	\$67	388	5	3	60	20	60	195	40	20	5	7	.....	.....	.....	20	434	203	.....
Aurora.....	Ger.....	312	.....	.....	312	8	6	.....	50	180	190	25	20	25	5	.....	.....	.....	.....	515	.....	.....
Belleville ..	.....	520	.....	.....	520	2	3	96	15	60	80	50	20	29	5	.....	.....	.....	.....	415	.....	.....
..	Am.....	312	.....	.....	312	5	3	84	10	50	70	15	10	20	5	.....	.....	.....	.....	326	.....	.....
..	Ger.....	676	.....	.....	676	2	2	72	20	75	100	50	25	50	7	.....	.....	.....	.....	424	.....	.....
Champaign ..	Am.....	600	.....	.....	600	7	6	.....	35	.....	275	35	20	50	3	.....	.....	.....	.....	473	.....	.....
..	Eng.....	600	.....	.....	600	9	5	.....	20	.....	384	175	.....	.....	25	.....	.....	.....	91	750	.....	.....
Chicago.....	Irish.....	460	.....	600	460	8	5	114	49	100	150	150	50	.....	20	.....	.....	.....	.....	683	.....	.....
..	Ger.....	504	.....	200	704	7	5	192	45	90	150	60	30	10	6	.....	.....	.....	.....	603	.....	.....
..	Am.....	288	.....	.....	288	3	3	108	30	30	90	50	15	20	5	.....	.....	.....	.....	370	.....	.....
..	.....	516	.....	.....	516	6	5	72	60	75	150	50	42	50	10	.....	.....	.....	.....	520	.....	.....
..	.....	810	.....	.....	810	5	4	120	50	100	150	100	50	25	10	.....	.....	.....	.....	701	.....	.....
..	Irish.....	360	.....	.....	360	4	3	96	27	75	110	20	12	5	.....	.....	.....	.....	.....	357	.....	.....
..	Am.....	262	.....	.....	262	5	4	120	40	50	100	25	10	.....	.....	.....	.....	.....	.....	369	.....	.....
..	.....	460	.....	.....	460	5	4	144	30	70	115	50	18	.....	.....	.....	.....	.....	.....	475	.....	.....
..	.....	633	.....	.....	633	3	4	120	42	150	108	100	30	50	22	.....	.....	.....	.....	678	.....	.....

Moline.....	Am.....	318	.....	.....	318	4	4	84	25	60	130	40	15	.....	40	15	421	.....	103
Peoria.....	Scotch.....	315	.....	.....	315	4	3	60	15	40	100	20	25	.....	8	70	378	.....	63
".....	Am.....	315	.....	.....	315	5	4	84	18	50	130	30	25	.....	.....	15	373	.....	58
Sterling.....	".....	435	50	.....	485	4	5	96	40	75	150	25	25	.....	5	1	414	.....	.....	
Totals.....	22	\$9,507	\$117	\$1,030	\$10,654	115	87	\$1,872	\$679	\$1,510	\$3,167	\$1,170	\$487	\$464	\$167	\$46	\$79	\$930	\$459	\$10,429	\$1,196	\$971
Averages.....	432 18	484 27	5.23	3.95	98	30 86	75 50	143 95	53 18	23 19	25 72	7 59	15	20 82	474 05	133	74

CURRIERS.

Chicago.....	Irish.....	\$517	.....	.....	2	3	\$96	\$20	\$80	\$180	\$23	\$10	\$18	\$8	\$12	\$6	\$5	\$25	\$516	\$1	\$17
".....	".....	1,300	\$800	.....	13	6	.....	60	260	500	250	60	90	25	.....	10	50	30	1,317	.....	.....
".....	Ger.....	600	120	.....	4	4	96	40	.....	275	130	.....	.....	5	.....	3	.....	.....	549	51	.....
".....	Am.....	864	.....	.....	5	4	120	40	.....	350	50	20	40	10	.....	3	10	45	688	176	.....
".....	".....	794	.....	350	3	3	72	25	40	160	25	25	50	12	.....	6	20	25	460	331	.....
".....	Ger.....	630	.....	.....	4	5	120	50	80	180	100	20	50	10	20	5	5	.....	610	.....	10
Joliet.....	".....	450	.....	.....	2	3	96	36	60	150	30	15	15	5	15	.....	25	25	472	.....	22
Totals.....	7	\$3,885	\$1,270	.....	33	28	\$600	\$271	\$520	\$1,795	\$608	\$150	\$263	\$75	\$17	\$33	\$160	\$150	\$4,672	\$562	\$79
Averages.....		555	.....	.....	4 71 3 29	100	38 71	25 52 60	12 50	256 43	86 66	25	52 60	12 50	.....	22 86	22	667 43	140	26	

DITCHERS.

Champaign.....	Am.....	\$450	.....	.....	3	3	\$48	\$32	.....	\$200	\$95	.....	.....	\$2	.....	.....	.....	\$50	\$427	\$23	.....
Gardner.....	Dane.....	351	.....	.....	4	3	48	32	48	10	4	\$16	\$24	.....	.....	.....	.....	10	192	159	.....
".....	".....	277	.....	.....	2	2	48	24	35	100	15	10	10	1	.....	.....	5	10	258	19	.....
Totals.....	3	\$1,078	.....	.....	9	8	\$144	\$88	\$83	\$310	\$114	\$26	\$34	\$3	.....	.....	\$5	\$70	\$877	\$201	.....
Average.....		359 33	.....	.....	3 2 66	48	29 33	41 50	103 33	38	13	17	1 00	.....	.....	.....	23 33	292 33	67	.....	.....

DRAUGHTSMEN.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings.....	Number in family .	Number of rooms occupied	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt	
		Husband ..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries ...	Clothing.....	Boots and shoes	Dry goods...	Books.....	Life insur- ance	Trade unions	Sickness.....				Sundries.....
Champaign.....	Am.....	\$720	.....	.....	\$720	2	5	\$180	\$25	.....	\$175	\$100	.....	.....	.....	.....	.....	.....	\$106	\$599	\$121	.....
Chicago.....	Can.....	1,250	.....	.....	1,250	2	5	240	50	.....	300	210	.....	.....	.....	.....	.....	.....	80	940	310	.....
.....	.....	612	.....	.....	612	4	4	144	54	.....	200	110	.....	.....	.....	.....	.....	.....	40	570	42	.....
Totals.....	3	\$2,592	.....	.....	\$2,592	8	14	\$564	\$129	.....	\$675	\$420	.....	.....	.....	.....	.....	.....	\$226	\$2,109	\$473	.....
Average.....	860 66	860 66	2.33	4.66	188	43	225	140	75 33	703	158

ELECTRICIAN.

Chicago.....	Am.....	\$800	\$800	5	4	\$180	\$40	\$220	\$230	\$60	\$760	\$40
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ENGINEERS (Loco.)

Aurora.....	French.....	\$861	\$861	4	6	\$108	\$60	\$265	\$43	\$50	\$180	\$10	\$40	\$75	\$911	\$77
	Am.....	1,050	1,050	4	8	192	85	190	60	25	80	10	56	35	822	\$228
		946	.....	.....	946	5	8	.....	72	.....	180	75	60	100	30	15	.....	.....	10	602	334
		1,277	.....	.....	1,277	3	7	156	80	.....	320	50	20	75	8	65	.....	.....	25	898	379
Champaign.....	Eng.....	858	.....	.....	858	7	6	.....	24	.....	420	200	.....	.....	10	24	.....	.....	122	817	41
East St. Louis.....	Am.....	1,000	.....	.....	1,000	2	5	204	75	.....	150	50	20	60	10	.....	.....	.....	75	714	246
		1,277	.....	.....	1,277	4	7	132	91	.....	180	75	58	100	12	42	.....	.....	50	826	451
		1,020	.....	.....	1,020	4	9	132	60	.....	200	40	25	60	25	40	.....	.....	50	673	347
		780	.....	.....	780	4	7	240	18	.....	480	80	30	100	15	9	.....	.....	50	1,147	197

ENGINEERS (Sta.)

Galesburg.....	Am.....	1,200	8	7	180	70	120	225	225	60	300	25	48	84	85	83	1,345	.....	143
Rock Island.....	Ger.....	1,045	8	4	.....	40	75	230	230	40	11	10	.....	.....	25	55	656	379	.....
Urbana.....	Am.....	1,200	5	4	.....	45	.....	331	331	.....	.....	3	30	3	.....	50	500	610	.....
Totals.....	12	\$12,242	53	72	\$1,314	\$550	\$303	\$3,194	\$1,123	\$398	\$966	\$108	\$363	\$50	\$332	\$030	\$10,031	\$3,055	\$349
Averages.....		1,020 17	4.42	6.	168	46 66	86 30	266 17	93 58	38 80	96 60	14	.....	.....	27 67	56 67	835 12	339	116

Alton.....	Scotch.....	\$495	6	4	.....	\$72	\$20	\$185	\$40	\$20	\$25	\$7	.....	.....	\$15	\$60	\$452	\$93	.....
Aurora.....	Am.....	450	5	4	.....	120	30	150	40	12	10	5	.....	.....	10	10	384	66	.....
.....	.....	600	5	5	.....	120	50	175	25	20	35	5	.....	.....	15	10	555	45	.....
.....	.....	600	8	5	.....	103	60	281	100	50	50	20	.....	.....	60	15	975	.....	\$375
Belleville.....	French.....	621	5	6	.....	72	55	144	18	18	75	12	.....	.....	20	40	610	14	10
.....	Am.....	600	8	3	.....	.....	15	233	50	25	25	10	10	.....	50	50	610	.....	.....
Champaign.....	.....	720	3	6	.....	.....	30	180	25	.....	50	25	.....	.....	100	25	508	212	.....
.....	.....	818	2	2	.....	.....	42	336	100	.....	.....	8	18	.....	75	75	663	185	.....
.....	.....	312	3	4	.....	96	25	156	30	15	.....	3	.....	.....	10	10	329	.....	17
.....	.....	540	4	5	.....	48	25	275	125	.....	.....	6	.....	.....	20	22	477	63	.....
Coal City.....	.....	720	4	6	.....	.....	45	180	60	40	40	10	.....	.....	10	105	550	170	.....
Collinsville.....	.....	660	2	2	.....	60	12	80	30	20	50	10	.....	.....	50	25	387	273	.....
Danville.....	.....	1,600	5	5	.....	.....	70	290	200	.....	300	10	.....	.....	50	.....	960	640	.....
.....	.....	463	3	2	.....	.....	25	145	50	20	40	10	22	.....	.....	.....	387	81	.....
.....	Eng.....	720	7	4	.....	120	24	250	40	25	35	10	7	4	.....	.....	685	25	.....
DuQuoin.....	.....	564	3	5	.....	.....	15	155	14	21	22	10	.....	.....	5	41	301	263	.....
East St. Louis.....	Ger.....	936	8	5	.....	180	20	200	35	15	72	20	18	.....	40	25	769	167	.....
.....	Am.....	1,092	7	8	.....	.....	25	300	50	75	150	20	35	.....	50	100	1,005	87	.....
.....	.....	728	4	3	.....	144	15	150	50	20	125	15	.....	.....	20	50	674	158	.....
Equality.....	.....	346	4	4	.....	48	23	67	32	28	31	5	.....	2	16	3	300	46	.....
Galesburg.....	.....	450	2	6	.....	.....	30	100	100	25	60	8	.....	.....	30	57	440	10	.....
Jacksonville.....	.....	600	4	4	.....	.....	30	200	100	.....	.....	10	.....	.....	10	50	400	200	.....
Mattoon.....	.....	540	5	4	.....	96	30	150	75	20	.....	.....	.....	.....	5	.....	454	86	.....
.....	.....	520	3	5	.....	78	30	63	40	12	10	32	.....	.....	50	50	465	55	.....
Moline.....	Scan.....	520	5	3	.....	72	40	140	50	20	8	8	.....	.....	20	40	458	62	.....
.....	Am.....	600	4	5	.....	.....	30	500	250	30	10	15	.....	5	850	100	1,440	5	.....
Pekin.....	.....	468	3	2	.....	45	20	240	40	.....	.....	.....	.....	.....	.....	.....	308	100	.....
Peoria.....	Ger.....	504	5	4	.....	.....	25	100	30	40	80	5	.....	.....	.....	25	440	64	.....
Springfield.....	Am.....	780	7	3	.....	125	54	240	125	40	75	12	.....	.....	25	10	736	44	.....
Sterling.....	.....	480	5	5	.....	84	50	200	75	65	40	10	.....	.....	25	10	634	121	.....
Totals.....	30	\$19,085	139	129	\$1,691	\$970	\$2,176	\$5,953	\$1,939	\$676	\$1,446	\$321	\$125	\$15	\$1,046	\$1,008	\$17,426	\$3,353	\$402
Averages.....		631 16	4 63	4.3	93 94	32 33	87 04	193 43	66 63	26	57 84	10 70	.....	.....	34 83	33 60	580 86	123	134

EXPRESS AGENT.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt.....	
		Husband ..	Wife	Children ..				Rent	Fuel	Meat	Groceries ...	Clothing.....	Boots and shoes	Dry goods...	Books	Life insurance	Trade unions				Sickness.....	Sundries ....
Eas: St. Louis...	Am.....	\$720	\$720	6	4	\$144	\$20	\$96	\$240	\$25	\$20	\$50	\$2	\$50	\$20	\$667	\$53

EXPRESS DRIVERS.

Aurora.....	Am.....	\$540	.....	.....	\$540	4	5	\$96	\$45	\$85	\$144	\$35	\$20	\$50	\$5	.....	.....	\$15	\$20	\$515	\$25	.....
Centralia.....	".....	624	.....	.....	624	8	5	108	35	60	144	75	20	80	5	.....	.....	25	50	602	22	.....
Champaign.....	".....	600	.....	.....	600	7	4	72	30	65	60	120	15	20	20	.....	.....	25	198	625	.....	.....
Chicago.....	Irish.....	756	.....	\$658	1,414	7	4	300	80	274	216	120	.....	.....	10	.....	\$3	.....	230	1,233	.....	.....
Galesburg.....	Ger.....	720	.....	260	980	8	6	168	36	180	300	80	35	90	5	16	.....	5	15	980	50	.....
Quincy.....	Am.....	546	.....	.....	546	3	5	.....	40	45	110	90	35	100	12	20	.....	35	59	546	.....	.....
.....	Irish.....	550	.....	.....	550	5	3	72	25	.....	175	100	25	25	5	.....	.....	25	25	477	73	.....
Totals.....	7	\$4,336	.....	\$918	\$5,254	42	32	\$816	\$291	\$709	\$1,149	\$620	\$150	\$305	\$62	\$36	\$3	\$130	\$597	\$4,928	\$351	\$25
Averages .....	.....	619 43	.....	.....	750 57	6 4 57	.....	136	41 57	118 17	164 14	88 57	25	60	10 83	.....	.....	18 57	85 28	704	70	25

FARM HANDS.

Mattoon.....	Am.....	\$216	.....	\$96	\$312	9	5	.....	\$40	\$25	\$75	\$75	\$25	\$20	\$15	.....	.....	\$20	\$15	\$310	\$2	.....
.....	.....	420	.....	431	852	9	4	\$72	30	108	156	200	.....	.....	3	.....	.....	75	208	852	.....	.....
Totals.....	2	\$636	.....	\$528	\$1,164	18	9	\$72	\$70	\$133	\$231	\$275	\$25	\$20	\$18	.....	.....	\$95	\$228	\$1,162	\$2	.....
Averages .....	.....	318	.....	264	582	9 4 5	.....	.....	35	61 50	115 50	137 50	.....	.....	9	.....	.....	47 50	111 50	581	.....	.....

FIREMEN (Loco.)

Alton.....	Am.....	\$620	.....	\$620	3	3	\$84	\$25	\$75	\$100	\$46	\$25	\$65	\$10	.....	.....	\$5	\$10	\$445	\$175
Aurora.....	Ger.....	730	.....	730	4	6	150	80	80	180	75	20	60	15	.....	.....	10	50	724	6
".....	French...	675	.....	675	5	6	108	60	96	225	25	25	50	5	.....	.....	15	50	685	.....
".....	Ger.....	600	.....	600	2	6	144	75	80	150	30	15	40	5	.....	.....	10	25	598	2
".....	".....	600	.....	600	2	4	120	65	85	160	30	15	60	10	.....	.....	10	50	649	49
Bloomington	Am.....	550	\$50	600	6	5	150	60	50	200	40	35	25	5	.....	.....	2	.....	567	33
Champaign.....	Ger.....	600	.....	600	7	5	.....	30	90	192	75	40	15	6	.....	.....	8	142	598	2
East St. Louis	Am.....	730	.....	730	6	6	78	40	91	100	75	25	50	1	.....	.....	.....	24	508	222
Freeport.....	".....	614	.....	614	5	4	.....	50	60	180	100	40	25	10	.....	.....	15	30	510	104
Mattoon.....	".....	660	.....	660	4	4	.....	35	108	100	75	20	15	3	.....	.....	5	25	386	274
Pontiac.....	".....	600	480	1,080	3	8	.....	30	25	225	40	25	20	5	.....	.....	40	25	450	630
Rock Island.....	".....	600	.....	600	4	3	108	35	60	180	50	20	7	2	.....	.....	25	15	514	86
".....	".....	720	.....	720	2	6	132	40	50	180	150	18	7	10	.....	.....	.....	40	642	78
".....	".....	720	.....	720	5	3	84	35	40	200	100	18	6	5	.....	.....	20	20	528	192
".....	".....	720	.....	720	4	5	120	50	40	160	125	18	8	10	.....	.....	.....	25	571	149
Springfield.....	".....	981	.....	981	3	3	96	27	36	265	50	24	50	6	.....	.....	.....	.....	586	295
Totals.....	16	\$10,720	\$50	\$11,250	65	77	\$1,374	\$737	\$1,056	\$2,797	\$1,086	\$383	\$543	\$108	\$149	\$12	\$165	\$531	\$8,961	\$2,348
Averages .....	.....	670	.....	703	12	4.06	4.81	46	66	174	67	23	31	6	.....	.....	10	33	560	167

FIREMEN (STATIONARY).

[illegible]

FISHERMAN.

ANNUAL EXPENDITURES FOR—	Debt.....	\$38
	Surplus.....	
	Total expenses....	\$578
	Sundries...	\$10
	Sickness..	\$20
	Trade unions	
	Life insurance	
	Books,...	\$5
	Dry goods	\$11
	Boots and shoes.....	\$38
	Clothing....	\$75
	Groceries....	\$200
	Meat.....	\$50
	Fuel.....	\$15
	Rent.....	\$72
Number of rooms occupied....		3
Number in family..		8
Total earnings.....		\$540
ANNUAL EARNINGS OF—	Children...	\$530
	Wife.....	
	Husband..	\$210
Nationality.....		Scam
PLACE	Moline	

FLAGMEN.

Aurora.....	Irish.....	\$420	.....	.....	\$420	2	4	\$96	\$15	\$96	\$100	\$20	\$10	\$25	\$5	..	..	\$15	\$10	\$422	\$3
"	"	312	.....	.....	302	4	6	.....	40	33	150	20	15	25	10	..	..	20	16	337	25
"	French.....	336	.....	.....	336	2	4	.....	40	48	141	20	10	20	2	..	..	20	15	319	17
Moline	Irish.....	360	.....	.....	360	3	4	120	30	40	150	40	12	4	..	..	..	30	..	426	66
Totals.....	4	\$1,428	.....	.....	\$1,478	11	18	\$216	\$155	\$219	\$514	\$100	\$47	\$74	\$17	..	..	\$35	\$35	\$1,504	108
Averages...	.....	357	.....	.....	360	2.75	4.5	108	38.75	51.75	136	25	11.75	18.50	4.25	.....	.....	21.25	8.75	376	94

FLOUR PACKERS.

Belleville.....	Am.....	\$416	.....	.....	\$416	2	5	\$100	\$12	\$27	\$52	\$40	\$20	\$20	.....	.....	.....	\$180	\$20	\$131	\$15
East St. Louis	"	624	.....	.....	624	3	3	.....	15	120	150	25	15	35	.....	.....	.....	10	40	40	216
"	"	540	.....	.....	540	3	3	90	50	70	150	40	20	30	3	..	..	75	25	519	27
Totals.....	3	\$1,580	.....	.....	\$1,580	8	9	\$156	\$57	\$217	\$352	\$105	\$45	\$35	\$10	.....	.....	\$365	\$85	\$1,358	\$45
Averages...	.....	528	.....	.....	528	2.66	3	78	19	72.33	110.66	31.66	15.33	28.33	3.33	.....	.....	88.33	28.33	452.66	121

FOREMEN.

Belleville.....	Am.....	\$1,500	.....	.....	\$1,500	6	8	.....	\$60	\$180	\$200	\$75	\$50	\$100	\$20	\$10	.....	\$250	\$100	\$1,075	\$125	.....
.....	..	1,010	.....	.....	1,802	8	7	\$300	40	200	300	125	75	100	20	.....	.....	100	150	1,410	392	.....
Champaign.....	.....	1,000	.....	.....	1,250	3	7	.....	35	.....	365	150	.....	.....	7	122	.....	.....	55	731	516	.....
Chicago.....	Irish.....	630	.....	.....	630	3	4	.....	60	60	175	125	.....	.....	18	.....	.....	20	72	530	100	.....
.....	French.....	1,000	.....	500	1,500	6	6	.....	40	75	300	150	55	100	.....	20	\$90	100	500	1,430	70	.....
Danville.....	Am.....	900	.....	.....	900	5	2	.....	50	.....	200	250	.....	150	50	.....	.....	20	.....	720	180	.....
.....	..	800	.....	.....	800	5	2	.....	40	.....	150	150	.....	150	6	.....	.....	90	.....	586	214	.....
East St. Louis.....	..	792	.....	250	1,042	3	4	144	125	20	180	50	15	85	10	.....	.....	25	25	679	363	.....
.....	..	900	.....	.....	900	3	3	.....	20	150	120	60	30	25	7	.....	.....	10	50	472	328	.....
.....	..	1,520	.....	1,020	2,540	6	8	450	60	109	600	250	75	250	30	.....	.....	25	100	1,949	591	.....
Freeport.....	..	1,050	.....	.....	1,050	7	8	.....	55	30	214	50	35	100	50	90	.....	45	65	734	316	.....
Jacksonville.....	..	936	.....	.....	936	3	5	120	40	.....	250	200	.....	.....	15	.....	.....	75	100	725	201	\$49
Joliet.....	Irish.....	692	.....	150	842	10	5	.....	40	75	500	60	30	50	16	.....	.....	125	60	891	.....	277
Peoria.....	.....	619	.....	.....	619	6	5	.....	25	115	275	125	30	50	20	.....	.....	30	131	896	.....	.....
Sterling.....	Am.....	1,200	.....	.....	1,200	6	8	180	75	100	300	200	30	100	15	35	.....	30	100	1,165	35	.....
Totals.....	15	\$14,549	\$250	\$2,712	\$17,511	80	82	\$1,194	\$765	\$1,114	\$4,120	\$2,020	\$425	\$1,245	\$284	\$307	\$90	\$915	\$1,508	\$13,996	\$3,731	\$326
Averages.....	.....	969 93	.....	.....	1,167 40	5.33	6.13	238 80	51	101 27	875 27	134 66	42 50	103 75	18 93	.....	.....	61	100 53	933 07	287	163

FURNACEMEN.

Joliet.....	Am.....	\$637	.....	\$537	\$1,174	4	6	.....	\$70	\$120	\$300	\$75	\$10	\$35	\$17	.....	.....	\$100	\$50	\$797	\$377	.....
.....	Irish.....	575	.....	48	623	6	6	.....	45	60	250	20	20	35	3	.....	.....	25	30	503	120	.....
Springfield.....	..	612	.....	.....	612	6	3	.....	30	75	200	24	34	24	5	.....	.....	10	80	488	124	.....
.....	..	600	.....	.....	600	3	2	.....	20	65	150	15	25	40	6	.....	.....	.....	60	979	221	.....
Totals.....	4	\$2,424	.....	\$785	\$3,009	19	17	.....	\$155	\$320	\$900	\$134	\$117	\$134	\$31	\$21	.....	\$135	\$220	\$2,167	\$842	.....
Averages.....	606	752 25	4.75	4.25	38 75	80	225	34 50	29 25	33 50	7 75	33 75	55	541 75	310

GARDENER.

Joliet.....	Ger.....	\$380	\$72	\$152	11	3	\$30	\$15	\$300	\$25	\$30	\$25	\$25	\$20	\$170	\$18
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GILDER.

PLACE.	Nationality.	ANNUAL EARNINGS OF--			Total earnings.....	Number in family.	Number of rooms occupied.	ANNUAL EXPENDITURES FOR--												Total expenses....	Surplus.....	Debt
		Husband...	Wife.	Children...				Rent.	Fuel	Meat.	Groceries....	Clothing.	Boots and shoes.....	Dry goods...	Books.....	Life insurance.....	Trade unions	Sickness.....	Sundries.....			
Springfield	Eng.....	\$720	.....	\$384	\$1,104	12	4	\$180	\$36	\$120	\$360	\$180	.....	.....	\$24	.....	.....	\$20	.....	\$920	\$184	.....

GLASS BLOWERS.

Belleville	Am.....	\$900	.....	.....	\$900	3	3	\$120	\$25	\$120	\$150	\$75	\$25	\$30	\$15	\$25	\$10	\$50	\$75	\$720	\$180	.....
.....	Ger.....	831	.....	.....	831	4	3	84	20	100	30	50	18	25	15	19	10	90	50	511	320	.....
Rock Island	Eng.....	600	.....	.....	600	4	4	96	35	65	200	80	20	8	10	.....	5	15	10	544	56	.....
Totals.....	3	\$2,331	.....	.....	\$2,331	11	10	\$300	\$80	\$285	\$380	\$205	\$63	\$63	\$10	\$44	\$25	\$155	\$135	\$1,775	\$556	.....
Averages .....	.....	773	.....	.....	773	3.66	3.33	100	26.66	95	126.66	68.33	21	21	13.33	.....	.....	51.66	45	591.66	185	.....

GRINDERS.

Moline.....	Scan.....	\$450	.....	.....	\$450	5	4	\$108	\$50	\$100	\$150	\$75	\$20	\$10	\$10	.....	.....	.....	\$25	\$548	\$2	.....
.....	.....	650	.....	150	800	6	6	.....	30	75	250	125	30	8	10	.....	.....	\$25	40	593	207	.....
.....	.....	405	.....	.....	405	2	5	120	25	50	125	60	12	8	5	.....	.....	.....	15	420	.....	\$15
.....	Ger.....	935	.....	.....	935	2	3	90	40	55	150	80	16	7	10	\$20	.....	15	40	523	412	.....
Totals.....	4	\$2,440	.....	\$150	\$2,590	15	18	\$318	\$145	\$280	\$675	\$340	\$78	\$33	\$35	\$20	.....	\$40	\$120	\$2,084	\$621	\$15
Averages.....	.....	610	.....	.....	617.50	3.75	4.5	79.50	30.25	70	108.75	85	19.50	8.25	8.75	.....	.....	10	30	521	207	.....

HEATERS, (BAR MILL.)

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.....	
		Husband ..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries....	Clothing.....	Boots and shoes.	Dry goods...	Books.....	Life insur- ance	Trade unions	Sickness				Sundries
East St. Louis.....	Irish	\$1,776	.....	.....	\$1,776	5	4	.....	\$45	\$115	\$195	\$45	\$30	\$50	\$3	.....	.....	\$25	\$50	\$563	\$1,213	.....
"	.....	1,776	.....	.....	1,776	3	3	\$132	45	110	200	60	30	75	5	.....	.....	75	55	787	989	.....
"	Welsh.....	1,000	.....	.....	1,000	2	3	120	46	146	475	.....	25	50	15	.....	.....	25	95	997	3	.....
"	Eng.....	1,323	.....	222	1,544	5	5	180	57	150	250	60	30	75	9	.....	.....	25	75	911	633	.....
Totals.....	4	\$5,874	.....	\$222	\$6,096	15	15	\$432	\$193	\$521	\$1,120	\$165	\$115	\$250	\$37	.....	.....	\$150	\$275	\$3,258	\$2,838	.....
Averages .....	.....	1,468 50	.....	.....	1,524 3 75	3 75	3 75	144	49 25	130 25	280	41 25	28 75	62 50	9 25	.....	.....	37 50	68 75	814 50	659	.....

HEATER, (FOUNDRY.)

Springfield	Am.....	\$1,200	\$1,200	9	7	\$40	\$190	\$360	\$200	\$8	\$66	\$150	\$20	\$1,034	\$166
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HELPER IN SHOP.

Aurora.....	Ger.	\$450	\$450	4	5	\$96	\$15	\$85	\$150	\$30	\$20	\$20	\$20	\$5	\$10	\$463	\$13
"	"	504	504	4	5	132	50	75	125	30	20	35	10	15	492	\$12
Galesburg	"	380	.....	.....	380	5	4	84	20	25	100	70	25	55	5	.....	.....	10	15	409	.....	29
Total.....	3	\$1,334	.....	.....	\$1,334	13	14	\$312	\$115	\$185	\$375	\$130	\$65	\$110	.....	.....	.....	\$25	\$40	\$1,364	\$12	\$42
Averages .....	.....	444 66	.....	.....	414 66 4 33	4 33	4 66	104	33 33	61 66	125	43 33	31 66	36 66	2 33	.....	.....	8 33	13 33	454 66	.....	21

HOD CARRIERS.

Chicago.	Pole	\$735	3	\$60	\$15	\$175	\$75											\$325	\$173	\$25
Irish		505	3	72	20	200	100											392		
Galesburg	Scan	360	5	72	30	110	100											487		127
Totals	3	\$1,040	11	\$204	\$65	\$485	\$275	\$30	\$40	\$5	\$5	\$40	\$25	\$10	\$25	\$1,204	\$173	\$152		
Average		346 66	3 66	68	31 66	161 66	91 66	10	13 33	1 66		13 33	8 33			401 33				76

HORSESHOE MAKER.

Chicago	Am	\$580	5	\$96	\$40	\$330	\$50	\$15	\$10	\$15		\$20	\$11			\$692		\$112		
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HORSESHOER.

Chicago	Irish	\$900	3	\$144	\$35	\$300	\$145			\$10	\$6		\$15			\$655	\$245			
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HOTTLERS.

Chicago	Am	\$480	3	\$84	\$12	\$150	\$120						\$25			\$481		\$1		
Irish		468	3	120	35	188	80						43			468				
Galesburg	Scan	480	5	96	20	170	130						20			486		6		
Totals	3	\$1,428	13	\$300	\$67	\$508	\$330			\$2			\$153	\$75		\$1,435		\$7		
Averages		476	4 33	100	22 33	169 33	110						51	25		478 33				3.50

IRON AND STEEL WORKERS.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt.....		
		Husband..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries....	Clothing.....	Boots and shoes.....	Dry goods..	Books.....	Life insur- ance.....	Trade unions				Sickness ...	Sundries
Alton.....	Am.....	\$288			\$288	6	8		\$20	\$60	\$120	\$30	\$12	\$10	\$25			\$12	\$299	\$11		
Centralia	Eng.....	435			435	6	9	\$108	36	72	175	100	25	50	12			40	25	218		
Chicago	Scotch	760			760	3	4		30		190	210			10		\$30		250	\$40		
"	Am.....	600			600	8	6		60	130	200	60	35	40	4		4	125				
"	"	840			840	2	3	120	56	130	90	125	35	40	4		1					
Joliet.....	Eng.....	1,420		\$300	1,720	6	9		55	100	300	75	50	50	10		6	12	50	708		
"	Irish	756			756	4	5		40	84	200	20	16	20			6	10	30	426		
"	"	1,170			1,170	6	12		75	120	300	50	30	25	10	12	6	10	40	678		
Rock Falls.....	Am.....	480			480	5	5	60	40	50	175	45	25	30	5			5	3	438		
Sterling.....	"	600			600	4	6	75	50	100	125	30	25	20	1			25	5	431		
"	"	600			600	5	5	120	40	60	150	50	35	25	10			15	5	520		
"	"	720			720	7	5		53	80	180	75	40	25	10			15	15	493		
"	Irish.....	381		425	806	10	5		40	75	250	150	100	75	5			20	5	720		
Totals.....	13	\$9,103		\$725	\$9,828	72	77	\$483	\$595	\$1,061	\$2,455	\$1,020	\$428	\$410	\$106	\$22	\$53	\$272	\$440	\$7,345	\$2,720	\$237
Averages		700 23			756 5.38	5.92	96 60		45 77	88 42	188 85	78 46	35 25	34 16	8 15			20 92	37 54	565	272	79

JANITORS.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings	Number in family.	Number of rooms occupied	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt.....		
		Husband..	Wife.	Children...				Rent.....	Fuel.....	Meat.....	Groceries....	Clothing....	Boots and shoes.....	Dry goods..	Books.....	Life insurance.....	Trade unions	Sickness	Sundries			
Chicago.....	Am.....	\$480			\$480	3	2	\$120	\$20	\$50	\$160	\$120	\$10	\$6	\$3				\$60	\$480		
Moline.....	Irish	540			540	3	3		20	60	125	40	55	75	5				25	251	\$14	
Pontiac.....	Ger.....	700			1,276	9	5		35	60	250	125	35	35	8	\$18		\$30	25	678	\$598	
Peoria.....	Am.....	450			450	4	3		16	60	125	30	21	35			\$6	20	20	321	129	
Totals.....	4	\$2,170		\$576	\$2,746	19	13	\$120	\$91	\$170	\$660	\$315	\$86	\$116	\$16	\$18	\$6	\$30	\$105	\$1,733	\$727	
Averages.....		542 50			686 50	4.78	3.33		27 75	56 66	165	78 75	28 66	98 66	4				26 25	438 25	363	

LABORERS.

[illegible]

Laborers—Continued.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings.....	Number in family.	Number of rooms occupied.....	ANNUAL EXP. NDITURES FOR—										Total expenses....	Surplus.....	Debt.....				
		Husband ..	Wife	Children...																				
				Rent.....				Fuel.....	Meat	Groceries....	Clothing.....	Boots and shoes.....	Dry goods...	Books.....	Life insur- ance.....	Trade unions	Sickness.....	Sundries						
Bloomington...	Irish.....	\$250		\$300	\$550	4	5		\$35	\$72	\$144	\$30	\$20	\$25	\$4			\$10		\$210				
"	"	250			250	4	3		25	25	100	10	15	20				10		45				
"	"	360			360	2	3		30	75	175	10	15	25				10		20				
"	"	270			270	1	4		25	50	125	20	20	25	2			3						
"	"	300			300	5	2		26	30	125	30	15	14	5					25				
"	"	250			250	4	3	\$72	20	40	125	12	15	30				5		\$75				
"	"	275			275	4	3		26	50	100	20	15	30				15		15				
"	"	300			300	6	3		30	85	150	40	30	25				10		76				
"	"	300			300	5	3		50	75	150	15	20	25				3		43				
"	"	400		624	300	4	4		45	185	500	75	25	75	10			50		59				
"	Ger.....	300		144	1,024	2	8		30	75	100	40	10	25	1			5		14				
"	"	300			444	5	4		20	60	125	25	13	25	2		\$1	5		170				
"	"	300			300	5	3		25	60	200	35	35	40	5			5		105				
"	"	300			300	2	3		35	60	150	20	15	20	2			10		12				
"	Am.....	250			250	8	5		20	50	150	25	10	30	5			5		5				
"	"	300			300	4	4		30	60	150	25	15	20	2			70		122				
"	"	350			300	2	3	36	27	40	80	15	8	15	3			2		79				
"	"	180			450	2	3		50	75	175	25	20	40	5			2		54				
Carlinville	"	420		200	140	4	2	36	20		70	15		25				10		1				
"	Irish.....	324			620	7	2	36	26		240	180	15					10		113				
"	Am.....	315			315	6	2		30	50	75	25	15	10				20		69				
Centralia	Irish.....	360	100		460	3	2	36	20		125	100	15					10		29				
"	Ger.....	337			337	3	3	60	38	72	144	45	12	40				10		16				
"	Am.....	410			410	4	3		24	60	144	25	12	25				10		25				
"	Colored..	315	144	175	631	4	3	72	12	80	135	40	18	45	5			15		13				
"	"	210			210	3	4	48	36	72	180	75	18	50				15		158				
"	Am.....	390		420	810	6	3	96	18	48	104	25	10	30				5		88				
"	Colored..	390			390	2	4		30	120	180	50	18	50	6	\$25		5		251				
"	"	210	125		335	2	4	36	30	45	80	35	10	50				15		9				
"	Am.....	210	100	30	340	3	6		35		130	65	15	30				50		24				
"	Colored..	264			264	2	1		20	25	115	25	20	25						5				
"	Am.....	375	144	96	615	3	4		35	60	144	50	15	25				20		191				
"	Colored..	270		276	546	8	5		40	90	180	100	25	40	5			20		20				
"	"	300	144		444	2	2		20	60	180	35	18	30	10			20		51				
"	Am.....	432			432	6	7	72	27	55	144	45	18	35				20		19				

STATISTICS OF LABOR.

Labore's—Continued.

PLACE.	Nationality.....	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus.....	Debt.....					
		Husband ..	Wife	Children ..				Rent.....	Fuel.....	Meat.....	Groceries ...	Clothing	Boots and shoes.....	Dry goods..	Books.	Life insur- ance.....	Trade unions				Sickness	Sundries			
Chicago.....	Ger.....	\$360		\$510	\$1,000	5	5	\$180	\$30		\$400	\$200		\$200		\$200	\$6			\$8		\$25	\$1,018		\$18
"	Irish.....	285		128	413	4	4	96	21		200	96								11			339		56
"	Irish.....	300			300	3	3		12		100	40								8			356		
Danville.....	Irish.....	300		210	540	4	4	24			150	60		10			2						240	300	
"	Scotch...	300		200	500	6	6	60	20		60	25		25			3						433	67	
"	Ger.....	90	\$200		290	2	2	60	10	60	60	15		15			5			15			260	30	
"	Eng.....	270			270	2	2	48	16	60	100	15		10									259	11	
"	Am.....	414			414	4	4		24		200	35		20					10			394	20		
"	"	262			262	1	1	36	10	60	100	20		20								276		14	
"	"	135	155		290	3	3	60	12	60	120	20		15								299		9	
"	"	300			300	4	4	60	15	90	130	20		15								356		56	
"	"	66			66	3	3		15		240			10			2			50			327		261
"	"	360		75	435	5	5	48	10	100	150	75		15					10			428			
"	"	468			468	2	2	60	20	75	150	50		25			5					405			
"	"	360		250	610	3	3		15	75	100	100		35			12					357			
"	"	454		100	550	6	6	120	30	100	150	75		50			6					561		11	
"	"	450			450	4	4	60	20	75	150	30		20			2					332		10	
"	"	294		105	399	6	6	72	20	60	120	60		30			2		5			409		19	
"	"	480			480	3	3	96	25	60	240	30		18			10					499			
"	"	360			360	6	6	30	20	100	150	40		10			2					377		17	
"	"	459			459	3	3		15	72	130	50		30					10			360			
"	"	315			315	5	5		21	50	75	25		20					5			249			
"	"	358			358	3	3		21	50	75	25		20					20			288			
"	"	436			436	3	3		16	50	140	60		12			2		10			347			
"	"	50	25		75	2	2	42	20		100	30		15								150		76	
"	"	520			520	4	4	78	24	100	150	30		20			10					433			
"	"	468			468	4	4	78	24	80	130	30		25			5		10			407			
"	"	336			336	2	2	60	12	75	75	15		10								262			
"	"	900	120		420	4	4	36	10	75	125	30		15					25			326			
"	"	336			336	2	2		18	85	125	40		12								305			
"	"	324			324	3	3	60	16	60	120	20		15					12			333		51	
"	"	187			187	3	3	49	10	75	175	25		30					10			388			
"	"	302			302	5	5		24	50	100	25		15			2					231			
"	"	300			300	3	3	36	12	72	125	15		10					15			300		46	
"	"	225			225	4	4	30	15	60	75	30		15								271			
"	"	225	100		325	2	2	60	16	60	110	20		12								298			

EARNINGS AND EXPENSES.

[illegible]

Laborers—Continued.

Place.	Nationality	ANNUAL EARNINGS OF—			Total earnings....	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt.....
		Husband..	Wife	Children ..				Rent.....	Fuel	Meat.....	Groceries...	Clothing. ...	Boots and shoes.....	Dry goods...	Books	Life insurance	Trade unions	Sickness ..	Sundries	
Joliet.....	Irish	\$460			\$450	5	6	\$86	\$50	\$60	\$200	\$25	\$15	\$16	\$3			\$10	\$10	\$368
"	Am.	465			465	5	5		45	48	150	25	10	15	5				15	50
"	"	270			270	5	4		39	40	175	25	20	30	3				30	\$116
"	French	505		\$300	805	10	5		25	120	360	100	50	75	25				30	
Mattoon.....	Scotch	468			468	10	5		25	75	300	10	12	20						50
"	Am.	336			336	3	3	96	30	75	100	30								
"	"	334			334	5	4	73	30	190	100	40	10						25	
"	"	432			432	4	4	95	30	190	200	30	15	15	1					58
Moline.....	Irish	540			540	4	4	144	50	250	15	75	30	10					15	
"	Scot.	315			315	5	5	108	35	50	140	40	18	8	10	18			25	108
"	"	300	\$35		335	4	4	108	35	35	170	50	18	5	7				25	125
"	"	280			280	5	5	72	50	60	100	30	20	5						120
"	"	315		120	435	8	3	90	50	100	150	50	30	8	8					60
"	"	468			468	7	5	72	35	10	140	60	13	10					16	167
"	"	262			262	7	2	72	20		150	30	10						10	85
"	"	324			324	5	3	60	30	25	400	100	12	12	13	50			40	370
"	"	370			370	3	3		30	40	140	25	12						10	84
"	"	235			235	2	2	60	25	40	140	25	12	7					10	91
"	"	300			300	4	3	72	35	40	180	40	17	7					15	
"	"	455			455	3	3	60	15	30	150	40	10	4					10	
"	"	433			433	3	3		14	30	200	85	40	7					10	
"	"	300			300	3	3		25	30	200	50	20	6					15	58
"	"	390			390	4	4		30	50	150	100	12	6	12				15	50
"	"	240			240	3	3	72	20	50	160	40	12	4	5				15	41
"	"	360		150	510	6	6		30	65	200	125	16	8	10				15	
"	"	360			360	3	2	60	11	45	140	40	16						20	45
"	"	360			360	4	4		15	60	200	60	18	6	6				15	32
"	"	360			360	4	4	56	20	65	155	50	20	6	5				10	74
"	"	360			360	6	6		15	25	225	50	16	5	3				16	99
"	Am.	330			330	3	3	60	20	60	175	50	15	4					16	
"	Colored.	240	10		250	3	3		10	20	50	25	5	2					15	123
"	"	405			405	2	2	24	35	50	125	30	12	3					10	187
"	"	468		200	668	4	3	72	30	75	150	60	15	8					10	248
"	"	190	50		240	4	4		15	20	100	50	12	9					5	16
"	Am.	400			400	3	5	72	30	50	13	60	15	5					25	315

EARNINGS AND EXPENSES.

Moline.	Am.	420	75	405	4	3	48	20	40	230	60	18	7	0	...	5	15	15	452	48
"	"	360	...	360	4	3	73	25	55	160	60	16	7	...	15	10	10	409	...	
"	Colored.	390	...	390	4	3	84	25	60	150	50	16	4	...	10	25	25	408	...	
"	Am.	320	60	370	2	2	...	15	35	75	30	10	4	12	...	10	20	211	159	
"	"	257	...	257	4	4	72	25	50	125	25	20	8	3	...	25	10	363	...	
"	"	360	...	360	3	3	84	35	65	155	25	12	7	2	...	5	5	396	...	
"	"	300	...	300	2	2	48	25	30	100	40	10	5	5	...	15	25	303	...	
"	"	240	...	240	2	2	72	15	5	75	30	10	5	...	50	50	262	...		
"	"	270	...	270	5	3	72	30	65	130	35	20	8	5	...	35	15	415	...	
"	Can	440	...	440	4	3	72	30	30	150	50	15	7	10	30	50	20	469	...	
"	Ger.	306	...	306	4	2	54	25	45	125	40	10	7	3	...	...	10	319	...
"	"	390	...	390	6	4	108	30	60	125	65	18	9	...	...	...	10	425	...
"	"	225	...	225	7	2	60	10	30	75	35	12	...	...	...	60	...	272	...
"	"	516	...	516	6	4	60	25	75	175	75	25	6	10	18	20	...	524	...	
"	"	280	...	280	4	3	84	25	50	140	60	20	8	10	...	15	25	437	68	
"	"	360	...	360	5	3	48	30	30	100	...	...	5	...	...	...	...	221	189
"	"	333	...	333	4	1	36	30	...	100	40	...	...	...	...	...	...	243	...
"	"	150	...	150	6	2	48	35	5	100	8	8	7	...	...	...	...	259	109
"	"	312	...	312	2	2	48	25	50	100	40	10	6	...	...	...	...	287	25
"	Irish	432	...	432	4	5	...	40	60	200	100	25	8	10	...	25	45	513	294	
"	"	315	...	315	4	4	...	40	65	150	65	30	15	6	...	25	50	446	194	
"	"	396	...	396	5	4	...	35	75	250	150	30	12	10	...	...	100	662	274
Pekin	Am.	195	...	195	5	3	72	15	...	128	...	13	28	1	...	...	...	257	...
"	Col.	234	...	234	4	2	...	15	45	108	15	15	6	...	...	12	18	234	...
"	Am.	125	...	125	3	13	18	10	...	90	10	...	...	...	...	...	...	128	...
Peoria.	Ger.	300	...	300	2	3	48	...	30	125	25	10	8	2	...	25	25	300	...	
"	Am.	450	...	450	6	4	84	20	40	130	90	30	20	2	...	8	10	434	...	
"	Ger.	360	...	360	5	3	72	14	25	85	75	20	50	3	...	8	20	372	...	
"	Eng.	378	...	378	5	3	...	16	35	75	20	45	40	5	...	15	15	266	...	
"	"	525	...	525	5	4	96	20	40	85	60	30	10	...	...	10	15	381	...
"	Irish	360	...	360	5	3	72	16	40	90	50	20	30	...	...	40	20	378	...
"	Eng.	360	...	360	4	3	84	16	25	70	50	25	10	...	...	20	30	330	...
"	Irish	504	...	504	6	4	108	18	35	90	20	30	60	10	...	...	...	391	...
"	Eng.	360	...	360	4	3	72	12	75	100	80	25	30	3	...	...	...	407	...
"	Am.	396	...	396	3	3	72	10	35	110	90	25	25	5	...	...	...	392	...
"	Eng.	576	...	576	4	4	...	18	60	120	80	40	80	10	...	30	15	453	...	
"	Am.	270	...	270	3	3	72	16	40	100	30	20	35	5	...	...	...	328	...
"	Irish	324	...	324	4	2	...	12	50	75	40	15	40	...	...	4	10	280	...
"	"	324	...	324	3	2	...	12	50	150	18	60	25	...	...	...	...	244	...
"	"	270	...	270	6	4	108	24	75	150	20	15	90	8	...	12	5	550	...	
"	Ger.	324	...	324	4	3	84	18	40	90	20	18	30	5	...	8	9	325	...	
"	Am.	270	...	270	6	4	96	20	50	100	60	40	5	...	...	...	...	374	...
"	"	270	...	270	4	3	84	16	40	130	40	25	35	...	...	...	...	395	...
"	"	360	...	360	5	3	60	15	50	90	60	40	10	...	...	...	...	320	...
"	Scotch	450	...	450	4	4	84	18	50	125	40	30	10	3	...	6	15	381	...	
"	Irish	360	...	360	9	5	96	20	60	150	30	80	80	...	...	...	...	546	...
"	Am.	360	...	360	6	4	84	18	50	120	40	35	30	...	...	5	5	387	...
"	Scot	360	...	360	5	4	84	18	50	125	30	18	23	8	...	...	...	376	...
"	Ger.	360	...	360	5	3	72	18	30	110	40	30	12	3	...	...	...	331	...
"	"	360	...	360	6	4	72	16	50	100	18	70	15	...	...	...	...	364	...
"	"	360	...	360	4	3	84	16	40	120	20	30	10	...	...	16	15	351	...
"	Am.	360	...	360	5	4	108	30	80	175	60	40	25	8	...	...	...	552	...

Laborers—Continued.

PLACE.	Nationality	ANNUAL EARNINGS OF—			ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.		
		Husband ..	Wife.....	Children...																
				Rent	Fuel	Meat.....	Groceries....	Clothing....	Boots and shoes.	Dry goods..	Books	Life insur-ance	Trade unions	Sickness	Sundries					
Peoria...	Am.	\$360		\$75	\$72	\$12	\$25	\$125	\$40	\$28	\$24	\$12			\$18	\$20	\$378	\$57		
"	"	315			48	14	32	110	30	16	30	3				18	301	14		
"	"	378			72	18	45	118	35	18	25	6				15	347	31		
"	"	360			60	15	40	85	30	24	20	8				10	297	63		
"	Ger	468		368	132	35		175	90			12			4	25	519	167		
"	Irish	360		260		25		216	45	30		15			54	50	421	199		
"	Am.	334			72	25		125				5			25	25	302	82		
"	Am.	324		688	144	45		275	95	45		20				50	709	303		
"	Irish	378			72	25		190	65			5				50	342	86		
"	Eng	378		674	144	50		250	75	50		25			50	50	719	353		
"	Am.	324		168	60	30	40	175	100			12			25	50	476	70		
"	Ger	324			72	20	45	90	30	18		3			40	10	321	3		
"	Am.	270		150	84	16	60	110	25	25		5			4	10	837	\$	\$13	
"	Irish	472				25		161	55	35		10				15	474	\$4		
"	Am.	360		168		35		175	65			25				25	306	172		
"	Am.	360		312		30		160	90			12			50	25	369	168		
"	Am.	360			84	25		150	60			6				25	367	345		
"	Ger	468		698		30		250	25	10		16				35	339	21		
"	Scotch	378			72	40		225	60	86		15			35	50	370	98		
"	Am.	387			72	25		175	70			5				25	372	371		
"	Irish	360			72	30		165	90	18		5				25	360	15		
"	Ger	378		208		15	65	150	85			15			25	35	315	271		
"	Am.	378		312		35		150	90			15			50	15	440	258		
"	Irish	472			84	12		150	100	25		15					401	71		
"	Am.	240			30	20	20	177	15	8		5			60		352	113		
"	Irish	342			72	30	28	146	20	13		5				10	355	13		
"	Am.	351				36	60	132	30	32		6				25	343			
"	Irish	367				24	44	180	30	18		5				25	345			
"	Am.	342			54	20	58	95	28	21		10				30	336			
"	Irish	620			72	30		160	30	18		10				50	396	225		
"	Am.	423			84	24		135	60			10			15	30	358	64		
"	Am.	520				35		225	35	25		15			25	25	415	105		
"	Irish	408				30		175	70			10			50	25	370	98		
"	Ger	520				30		200	40	35		10			50	25	400	129		
"	Am.	520			96	30		266	39	25		5				25	434	35		

EARNINGS AND EXPENSES.

[illegible]

Laborers—Continued.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings.....	Number in family..	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses	Surplus.....	Debt.....
		Husband ..	Wife	Children...				Rent	Fuel.....	Meat	Groceries....	Clothing.....	Boots and shoes.....	Dry goods...	Books.....	Life insur- ance.....	Trade unions	Sickness.....	Sundries.....	
Sterling.....	Irish	\$375	.....	.....	\$375	8	4	.....	\$35	50	\$150	\$75	\$35	\$25	\$5	.....	.....	\$10	\$5	\$15
.....	Am.....	552	.....	.....	552	3	4	\$60	48	52	104	50	30	50	.....	.....	20	.....	.....	.....
Totals.....	397	\$136,799	\$4,438	23,130	\$164,967	1816	1885	19,682	10,766	17,790	\$58,355	19,335	\$6,462	\$7,693	\$1,668	\$304	\$154	\$5,512	\$6,464	\$18,682
Averages	344 59	414 02	4.57	3.48	75 14	27 12	57 39	146 99	46 88	19 98	23 82	4 20	13 88	16 28	93 61

LABORERS (RAILROAD).

Alton.....	Irish.....	\$330
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LABORERS (COAL MINES).

Coal City	Irish	\$1,097	8	5	\$35	\$108	\$480	\$80	\$20	\$60	\$7	\$12	\$125	\$895	\$202	
Collinsville	Nean	416	9	5	15	60	180	30	10	20	4	50	35	376	40	
	Eng.	432	4	3	12	65	125	15	10	10	1	50	20	380	52	
	Am.	576	3	4	15	83	115	27	21	13	4	50	50	450	126	
		399	4	2	15	75	100	25	15	15	5	30	50	390	9	
		420	3	3	20	85	135	15	20	15	3	22	15	402	18	
		675	5	5	14	90	175	31	17	16	5	29	50	523	152	
Equality		416	4	2	24	45	75	98	34	40	6	16	4	320	96	
Gardner	Eng.	362	6	4	27	35	156	20	37	75	2		10	362		\$22
	Dane	230	3	4	22	32	90	18			1	6	45	252		
Gartside	Eng.	420	3	3	25	78	110	40	20	15	3	30	10	391	29	
	Ger.	420	4	3	15	73	95	25	10	15		25	15	333	87	
	Eng.	420	5	4	24	80	125	30	20	15		25	30	423		3
	Ger.	440	4	3	20	65	125	30	10	20		50	50	432	48	
Pekin		408	4	5			225	75					45	350	58	
	Am.	540	2	3		100	236	67				25		505	35	
Streator	Ger.	400	3	4	10	72	220	50		25		9		400		
	Eng.	520	2	3	20	60	180	50	20	40	4		146	520		
	Welsh	750	8	4	20		540	36			20	15		644	106	
Totals	19	\$9,381	84	69	\$333	\$1,206	\$3,477	\$702	\$254	\$394	\$81	\$37	\$700	\$8,348	\$1,058	\$25
Averages		493 73.4	42 3.63		17 53	70 94	183	96 95	19 54	26 27	4 26		36 84	439 37	75	12

LARD RENDERER.

East St. Louis	Ger.	\$546		3	\$120	\$80	\$175	\$25	\$18	\$30			\$40	\$530	\$16	
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LATHER.

Champaign	Am	\$494	3	7	\$24		\$250	\$15	\$19	\$13	\$4		\$25	\$357	\$137	
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LAUNDRYMEN.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings.....	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.....	
		Husband ..	Wife.....	Children...				Rent	Fuel.....	Meat.....	Groceries ...	Clothing.....	Boots and shoes	Dry goods...	Books.....	Life insur- ance	Trade unions	Sickness.....				Sundries.....
Champaign	Am.....	\$900	.....	.....	\$900	4	3	\$144	\$100	.....	\$200	\$125	.....	.....	.....	.....	.....	\$10	\$50	\$6.9	\$271	.....
Danville.....	.....	300	.....	.....	300	3	2	.....	20	.....	75	150	.....	.....	.....	.....	.....	.....	45	.....	300	.....
Totals.....	2	\$1,200	.....	.....	\$1,200	7	5	\$144	\$120	.....	\$275	\$275	.....	.....	.....	.....	.....	\$10	\$95	\$929	\$271	.....
Averages .....	.....	600	.....	.....	600	3.5	2.5	.....	60	.....	137	137	.....	.....	.....	.....	.....	5	42	464	50	.....

LEAD MINERS.

Galena.....	Swiss.....	\$528	.....	100	\$528	3	3	\$36	\$20	\$40	\$150	\$50	.....	.....	.....	.....	.....	\$125	\$49	\$470	\$58	.....
".....	Irish.....	262	.....	.....	362	5	5	.....	35	50	150	75	.....	.....	.....	.....	.....	.....	40	358	4	.....
Totals.....	2	\$790	.....	\$100	\$890	8	8	\$36	\$55	\$90	\$300	\$125	.....	.....	\$8	.....	.....	\$125	\$89	\$828	\$62	.....
Averages .....	.....	395	.....	.....	445	4	4	.....	27	45	150	62	.....	.....	4	.....	.....	62	40	424	31	.....

LUMBER HANDLERS.

Champaign	Am.....	\$180	.....	.....	\$180	3	4	\$84	\$35	.....	\$125	\$15	\$25	\$30	.....	.....	.....	.....	\$15	\$497	\$17	.....
Chicago.....	Scan.....	450	.....	.....	450	3	2	48	20	.....	200	57	.....	.....	.....	.....	.....	.....	20	345	\$105	.....
".....	Bohemian	320	.....	80	400	9	4	108	20	.....	175	75	.....	.....	.....	.....	.....	\$5	20	403	3	.....
".....	Ger.....	550	.....	.....	550	7	3	68	25	\$200	300	25	30	50	10	.....	.....	.....	5	713	163	.....
.....	.....	300	.....	200	500	7	3	36	30	.....	270	56	.....	.....	.....	.....	.....	10	40	502	2	.....

MACHINISTS.

Freeport.....	Am.....	600	.....	.....	4	4	120	50	100	96	60	26	20	19	.....	.....	16	12	510	90
Galesburg.	Scan.....	483	.....	.....	2	4	96	25	25	100	55	20	45	5	.....	.....	.....	20	391	92
Totals.....	7	\$3,183	.....	.....	35	24	\$620	\$205	\$325	\$1,266	\$373	\$100	\$145	\$35	\$100	.....	\$30	\$162	\$3,361	\$287
Averages.....		454 71	53.43	88 57	29 29	108 33	180 86	53 29	25	36 25	5	4 29	23 14	480 14	96 46

Alton	Scotch	\$480																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									</
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MACHINISTS (RAILROAD.)

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings.....	Number in family.	Number of rooms occupied ..	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt
		Husband ..	Wife.....	Children...				Rent.....	Fuel.....	Meat ..	Groceries...	Clothing ..	Boots and shoes	Dry goods...	Books	Life insurance.....	Trade unions	Sickness....	Sundries.....		
Champaign	Ger	\$180	...	\$55	\$335	7	8	...	\$23	...	\$460	\$190	...	...	...	\$5	...	\$25	\$31	\$534	\$99
East St. Louis.	Irish	600	...	...	600	6	6	...	25	...	100	120	...	...	...	...	...	...	114	591	49
"	Am	882	...	...	882	2	6	...	20	\$25	120	100	\$25	\$80	30	...	...	15	415	467	...
"	Ger	912	...	618	1,530	6	5	\$120	25	25	150	150	...	25	10	\$17	...	50	40	1,052	508
Galesburg	Dane	592	...	...	592	4	3	96	15	65	135	25	10	20	5	...	...	20	25	415	176
"	Am	720	...	00	720	7	6	...	35	30	120	110	40	100	10	...	...	50	40	545	235
"	Am	700	...	104	804	5	5	150	40	45	105	85	25	60	12	...	...	30	50	665	139
Totals.....	7	\$4,886	...	\$867	\$5,753	37	34	\$355	\$183	\$430	\$1,550	\$810	\$103	\$285	\$74	\$17	...	\$175	\$315	\$4,318	\$1,534
Averages		698	...	...	821	5.29	4.86	122	26	86	222	115	26	77	10	57	...	25	45	516	255

MACHINE MINERS.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings.....	Number in family.	Number of rooms occupied ..	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt
		Husband ..	Wife.....	Children...				Rent.....	Fuel.....	Meat ..	Groceries...	Clothing ..	Boots and shoes	Dry goods...	Books	Life insurance.....	Trade unions	Sickness....	Sundries.....		
Collinsville	Am	\$518	...	...	\$518	6	3	\$72	\$16	...	\$150	\$25	\$20	\$20	\$3	...	...	\$50	\$25	\$163	\$185
"	"	648	...	...	648	6	4	84	15	...	175	40	22	25	2	...	...	25	50	531	117
"	"	648	...	...	648	3	4	...	20	...	100	40	20	15	2	...	...	50	25	347	301
Streator	"	820	...	...	820	5	4	84	18	...	240	25	25	60	30	\$20	...	15	12	691	219
Totals.....	4	\$1,427	...	...	\$2,764	19	15	\$240	\$68	\$317	\$665	\$130	\$57	\$120	\$57	\$20	\$6	\$140	\$112	\$1,942	\$322
Averages		691	...	...	691	4.25	3.75	80	17	79	166	32	21	30	6	7.5	...	35	35	485	265

MALSTERS.

Chicago.	Irish	\$576	.....	.....	.....	\$576	3	\$108	\$30	.....	\$900	\$70	.....	\$5	.....	\$20	.....	\$48	\$576	.....
Peoria	624	.....	.....	.....	624	3	60	20	.....	175	30	.....	5	.....	.....	.....	50	375	\$249
"	624	.....	.....	.....	624	3	108	36	.....	120	30	.....	7	.....	.....	.....	50	478	146
"	550	.....	.....	.....	550	4	60	18	.....	80	40	.....	3	.....	.....	.....	10	281	269
"	648	.....	.....	.....	648	6	.....	14	.....	120	90	.....	3	.....	.....	.....	15	357	291
Totals	5	\$3,022	.....	.....	.....	\$3,022	19	\$386	\$118	\$133	\$795	\$260	.....	\$23	.....	\$100	.....	\$163	\$2,067	\$955
Averages	604 40	.....	.....	.....	604 40	3.8	81	23 60	44	159	52	21 25	4 60	.....	25	.....	8	413 40	239

MARBLE WORKERS

[illegible]

MASTER MECHANICS.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.....	
		Husband ..	Wife	Children ..				Rent	Fuel	Meat.....	Groceries....	Clothing.....	Boots and shoes	Dry goods...	Books.....	Life insur- ance	Trade unions	Sickness.....				Sundries
East St. Louis...	Am.....	\$972	.....	.....	\$972	7	8	\$300	\$22	\$216	\$300	\$120	\$72	\$30	\$18	\$12	.....	.....	\$20	\$1,110	.....	\$138
Urbana .....	.....	1,800	.....	\$1,380	3,180	7	6	.....	50	.....	540	275	.....	.....	45	110	.....	.....	97	1,117	\$2,063	.....
Totals.....	2	\$2,772	.....	\$1,380	\$4,152	\$14	\$14	\$300	\$72	\$216	\$840	\$395	\$72	\$30	\$63	\$122	.....	.....	\$117	\$2,227	\$2,063	\$138
Averages	13 86	20 76	7	7	200	36	420	197 50	31 50	58 50	1113 50

MATRESS MAKER.

Chicago.....	Am.....	\$140	\$440	5	4	\$144	\$22	\$200	\$75	\$5	\$146	\$6
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MILLERS.

Belleville.....	Eng.....	\$1,200	\$1,200	4	4	\$120	\$15	\$75	\$156	\$75	\$75	\$10	\$554	\$646
Danville	Ger.	780	780	4	3	60	50	60	310	50	\$20	50	3	25	50	678	102
.....	.....	1,300	.....	.....	1,300	5	2	.....	50	100	200	200	.....	200	50	.....	.....	10	.....	810	490	.....
East St. Louis...	.....	600	.....	.....	600	5	4	.....	20	75	120	40	20	30	4	.....	.....	.....	.....	309	291	.....
.....	.....	840	.....	.....	840	3	3	108	15	75	120	30	12	50	24	.....	.....	15	50	499	341	.....
.....	Am.....	960	.....	.....	1,200	3	3	60	40	100	280	40	12	100	20	\$65	.....	10	60	787	413	.....
Jacksonville ...	Ger.....	1,500	.....	.....	1,500	3	5	180	18	150	200	55	15	125	30	20	.....	30	200	1,023	477	.....
.....	Eng.....	1,200	.....	.....	1,200	4	7	210	60	.....	240	200	.....	.....	18	42	.....	50	100	950	250	.....
Mattoon	Am.....	1,020	.....	.....	1,020	2	4	120	35	.....	200	200	.....	.....	15	.....	.....	20	100	630	330	.....
.....	.....	1,118	.....	.....	1,118	5	5	168	30	.....	365	200	25	.....	20	20	.....	50	50	1,003	115	.....
Peoria.....	Irish.....	420	.....	.....	420	3	4	72	16	25	100	45	25	40	6	.....	.....	5	15	349	71	.....
.....	.....	392	.....	.....	642	7	4	72	18	40	150	80	60	25	10	.....	.....	15	20	490	152	.....
.....	Am.....	648	.....	.....	648	3	3	144	25	60	180	120	40	50	15	.....	.....	.....	30	661	.....	\$16

MILLWRIGHTS.

Peoria.....	Am.....	648	.....	.....	.....	648	4	3	96	20	45	150	80	30	60	5	.....	.....	10	15	511	137	.....
.....	.....	864	.....	.....	.....	864	5	5	.....	24	60	150	200	40	100	10	.....	.....	20	30	634	290	.....
Sterling.....	.....	408	.....	.....	100	568	4	5	120	49	96	120	50	40	45	10	.....	.....	20	5	555	13	.....
Totals.....	16	\$13,958	\$240	\$350	.....	\$14,548	63	64	\$1,560	\$485	\$1,036	\$3,041	\$1,665	\$339	\$950	\$243	\$147	.....	\$305	\$735	\$10,506	\$4,058	\$16
Averages.....	.....	872 50	.....	.....	.....	909 25	3.94	4	120	30 31	75 43	190 06	41 56	28 28	73 08	15 19	.....	.....	19 25	45 94	655.62	271	.....

Champaign.....	Am.....	\$600	.....	.....	.....	\$600	2	3	\$60	\$19	.....	\$156	\$80	.....	.....	\$18	.....	.....	\$20	\$45	\$398	\$202	.....
Rock Falls.....	.....	600	.....	.....	.....	600	5	5	108	40	\$75	175	60	1\$25	\$30	5	.....	.....	5	2	535	65	.....
Totals.....	2	\$1,200	.....	.....	.....	\$1,200	7	8	\$168	\$59	\$75	\$331	\$140	\$34	\$30	\$23	.....	.....	\$25	\$47	\$933	\$267	.....
Averages.....	.....	600	.....	.....	.....	600	3.5	4	84	29 50	.....	165 50	70	.....	.....	11 50	.....	.....	12 50	23 50	466 50	133	.....

MOULDERS.

Alton.....	Scotch.....	\$480	.....	.....	.....	\$480	2	3	\$84	\$30	\$48	\$144	\$50	\$10	\$15	\$5	.....	.....	\$5	.....	\$391	\$89	.....
Aurora.....	Am.....	720	.....	.....	.....	720	2	7	.....	60	85	175	35	18	50	10	.....	.....	20	\$50	523	197	.....
Belleville.....	Ger.....	1,092	.....	.....	.....	1,092	3	4	96	20	90	140	95	20	15	16	.....	.....	15	60	579	518	.....
.....	Am.....	624	.....	.....	.....	624	3	4	.....	23	73	302	46	25	25	10	.....	.....	30	25	578	46	.....
.....	.....	675	.....	.....	.....	675	4	4	108	25	90	150	50	20	15	7	.....	.....	50	25	552	123	.....
Centralla.....	Irish.....	675	.....	.....	.....	675	4	4	66	30	72	195	100	30	50	10	.....	.....	25	80	638	17	.....
Champaign.....	Am.....	780	.....	.....	.....	780	2	2	96	36	.....	156	75	.....	.....	15	.....	.....	12	25	465	315	.....
Chicago.....	.....	513	.....	.....	.....	513	6	4	144	20	.....	200	100	.....	.....	60	.....	.....	25	25	564	.....	.....
.....	.....	630	.....	.....	.....	640	4	6	264	12	40	150	20	20	20	2	.....	.....	72	25	793	.....	.....
.....	.....	648	.....	.....	.....	648	4	3	120	40	82	288	20	10	90	2	.....	.....	100	15	707	.....	.....
.....	.....	811	.....	.....	.....	821	4	6	264	50	.....	325	60	.....	.....	10	.....	.....	10	10	829	.....	.....
.....	Scan.....	756	.....	.....	.....	756	5	5	144	36	.....	250	200	.....	.....	10	.....	.....	5	5	650	.....	.....
.....	Eng.....	731	.....	.....	.....	731	4	4	120	38	95	152	120	.....	.....	20	.....	.....	52	52	658	.....	.....
.....	Scan.....	500	.....	.....	.....	500	7	4	150	30	.....	183	90	.....	.....	10	.....	.....	60	60	530	.....	.....
.....	Am.....	675	.....	.....	.....	675	3	3	108	30	.....	150	40	.....	.....	6	.....	.....	30	10	519	.....	.....
.....	French.....	704	.....	.....	.....	704	3	5	144	55	108	394	20	20	20	9	.....	.....	40	15	832	.....	.....
Freeport.....	Ger.....	660	.....	.....	.....	660	4	6	.....	75	140	144	200	30	40	.....	.....	.....	50	50	736	.....	.....
Galesburg.....	Scan.....	780	.....	.....	.....	780	3	3	120	50	80	140	150	40	130	12	.....	.....	40	30	817	.....	.....
.....	Am.....	780	.....	.....	.....	780	5	6	.....	35	40	120	90	30	100	12	.....	.....	35	75	537	.....	.....
.....	.....	620	.....	.....	.....	620	3	4	.....	28	35	120	150	30	80	7	.....	.....	25	60	535	.....	.....
Joliet.....	.....	756	.....	.....	.....	756	7	5	.....	50	85	296	45	25	45	10	.....	.....	15	35	720	.....	.....
.....	Irish.....	612	.....	.....	.....	612	11	8	108	60	150	400	150	50	60	10	.....	.....	150	150	1,386	.....	.....
Mattoon.....	Am.....	648	.....	.....	.....	648	2	2	72	25	43	156	60	20	8	3	.....	.....	5	20	412	236	.....

STATISTICS OF LABOR.

PLACE.	Nationality	ANNUAL EARN-INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt.....		
		Husband ..	Wife	Children ..				Rent.....	Fuel	Meat.....	Groceries ...	Clothing.....	Boots and shoes.....	Dry goods...	Books	Life insur- ance	Trade unions				Sickness	Sundries
Moline.....	Scotch.....	\$650	.....	.....	\$650	3	5	.....	\$30	\$65	\$200	\$75	\$15	\$12	\$10	.....	\$10	.....	\$40	\$457	\$193	.....
..	Scan.....	876	.....	.....	876	6	3	.....	25	75	250	75	30	7	7	.....	9	\$10	50	538	138	.....
..	Irish	450	.....	.....	450	4	3	\$60	40	45	150	50	15	4	10	.....	8	20	50	437	13	.....
..	Am.....	500	.....	.....	500	2	4	96	75	50	150	60	16	6	8	.....	.....	20	25	471	29	.....
..	..	703	.....	.....	703	5	4	102	40	100	265	75	30	10	10	\$12	8	25	50	754	.....	\$51
..	..	930	.....	.....	930	2	5	150	35	75	250	150	20	12	10	18	.....	.....	100	833	97	.....
Peoria .....	..	660	.....	.....	660	2	5	150	40	60	200	100	18	8	10	20	8	.....	75	684	.....	24
..	Eng.....	510	.....	.....	510	5	4	.....	25	80	175	80	30	40	15	.....	5	10	25	485	25	.....
..	Irish	720	.....	.....	720	6	4	96	20	40	120	150	60	40	30	.....	5	.....	15	576	144	.....
..	Am.....	864	.....	.....	864	8	5	.....	30	60	140	180	60	90	10	.....	5	.....	30	605	403	.....
..	Irish	618	.....	.....	618	4	4	120	25	75	175	80	40	35	10	.....	5	.....	15	530	68	.....
..	Irish	693	.....	.....	693	4	4	96	30	.....	156	30	25	25	10	.....	.....	.....	50	447	246	.....
..	Eng.....	858	.....	.....	858	4	5	.....	40	.....	200	30	25	25	15	.....	.....	.....	35	420	438	.....
..	Irish	742	.....	.....	742	3	3	84	25	.....	185	35	18	15	10	10	.....	.....	50	432	310	.....
Quincy	Am.....	780	.....	.....	780	3	4	108	30	.....	120	35	25	20	10	10	.....	.....	35	393	387	.....
..	Ger.....	650	.....	.....	650	5	6	108	60	50	150	50	60	90	6	.....	.....	6	70	650	.....	.....
..	Irish	912	.....	.....	912	2	1	48	50	60	310	200	.....	.....	10	.....	.....	25	100	803	109	.....
..	Am.....	960	.....	.....	960	4	6	144	75	50	100	50	30	40	35	.....	6	.....	50	567	393	.....
Rock Island.....	Irish	1,108	.....	100	1,108	9	6	180	30	100	250	75	75	150	15	.....	.....	.....	100	1,045	63	.....
..	Am.....	750	.....	.....	750	4	4	72	40	65	150	50	18	8	10	.....	7	.....	50	510	240	.....
..	Am.....	726	.....	.....	726	3	5	.....	20	52	260	50	12	50	15	.....	.....	.....	65	544	182	.....
Springfield	Eng.....	607	.....	.....	607	5	4	60	40	52	192	50	16	25	9	.....	2	.....	30	468	139	.....
..	Am.....	890	.....	200	890	5	5	144	25	200	260	.....	60	100	10	19	6	.....	46	890	.....	.....
..	Am.....	727	.....	.....	727	6	4	120	30	26	250	132	.....	25	2	14	12	.....	60	691	36	.....
..	..	720	.....	.....	720	6	3	108	40	96	240	30	22	25	8	.....	.....	.....	50	646	74	.....
Sterling.....	..	675	.....	.....	675	5	4	120	50	75	210	50	25	25	5	.....	.....	.....	5	605	70	.....
Totals.....	49	\$34,879	\$20	\$1,566	\$36,465	211	216	\$4,566	\$1,823	\$3,007	\$9,865	\$1,063	\$1,179	\$1,735	\$556	\$277	\$228	\$1,045	\$2,160	\$30,502	\$6,454	\$491
Averages...	712 04	744 19	4.31	4.41	120 16	37 20	75 17	201 34	84 65	28 07	39 43	11 55	21 33	48 08	622 48	169	54

MONUMENT SETTER.

Rock Island.....	Am.....	\$600	\$800	3	3	\$60	\$35	\$50	\$150	\$75	\$15	\$7	\$10	\$5	\$40	\$417	\$153
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MULE DRIVERS.

Gardner.....	Dane.....	\$333	\$333	3	4	\$60	\$24	\$40	\$100	\$15	\$40	\$25	\$12	\$12	\$328	\$5
Streator.....	Am.....	660	660	3	6	96	20	96	200	100	45	607	53
.....	Eng.....	486	.....	.....	486	5	3	72	8	72	200	50	40	.....	.....	.....	.....	.....	.....	442	44	....
Totals..	3	\$1,479	.....	.....	\$1,479	11	13	\$228	\$52	\$208	\$500	\$165	\$80	\$70	\$10	\$12	.....	\$40	\$1,377	\$102	....
Averages ..	.....	493	.....	.....	493	3.66	4.33	76	17	33	66	55	40	35	3	33	.....	13	33	459	94	....

NAILERS.

Belleville.....	Eng.....	\$1,080	.....	\$318	\$1,398	6	6	\$192	\$52	\$104	\$200	\$200	.....	\$100	\$10	.....	\$24	\$25	\$50	\$957	\$441	.....
..	.....	1,296	.....	.....	1,296	2	6	180	50	208	50	208	.....	50	10	.....	8	25	50	839	457	.....
..	Am.....	1,600	.....	.....	1,600	8	6	150	25	120	300	300	\$30	100	20	\$16	7	25	50	893	707	.....
..	.....	1,800	.....	.....	1,800	2	5	.....	25	60	180	180	8	50	15	.....	10	25	25	388	1,412	.....
..	.....	1,188	.....	.....	1,188	6	4	144	25	120	180	100	50	50	15	16	6	25	25	756	432	.....
Centralla.....	.....	1,440	.....	.....	1,440	2	7	141	36	120	240	50	25	75	15	24	...	10	84	823	617	.....
..	.....	1,470	.....	.....	1,470	5	5	.....	36	120	240	150	30	110	15	.....	...	25	125	851	619	.....
Totals.....	7	\$9,874	.....	\$318	\$10,192	31	39	\$810	\$249	\$852	\$1,548	\$615	\$143	\$535	\$100	\$56	\$55	\$135	\$409	\$5,507	\$4,685	.....
Averages	1,410	1,456	4.43	5.71	162	35	57	78	86	28	76	14	29	...	19	58	786	640

NAIL-PLATE SHEARER.

Centralla.....	Am.....	\$493	5	4	\$30	\$80	\$180	\$15	\$15	\$60	\$5	\$35	\$450	\$43
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ORGAN BUILDERS.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—												Total expenses	Surplus.....	Debt.....
		Husband ..	Wife.....	Children...				Rent.....	Fuel.....	Meat	Groceries...	Clothing.....	Boots and shoes	Dry goods...	Books.....	Life insur- ance.....	Trades union	Sickness.....	Sundries.....			
Chicago	Can.	\$800	.....	.....	\$800	5	4	\$180	\$40	\$75	\$300	\$75	\$25	\$25	\$15	\$18	.....	\$20	\$10	\$783	\$17	.....
.....	Scan.....	400	.....	\$564	964	4	6	120	50	40	220	100	35	25	15	.....	.....	35	12	652	312	.....
Totals.....	2	\$1,200	.....	\$564	\$1,764	9	10	\$300	\$90	\$115	\$520	\$175	\$60	\$50	\$30	\$18	.....	\$35	\$22	\$1,435	\$319	.....
Averages.....	.....	600	.....	.....	882	4.9	5	150	45	57 50	260	87 50	30	25	15	.....	12 50	11	717 50	164	.....

OMNIBUS DRIVER.

Rock Island.....	Scan	\$180	\$180	5	4	\$84	\$35	\$55	\$150	\$50	\$15	\$7	\$5	\$10	\$10	\$15	\$436	\$44
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PAINTERS.

Alton.....	Scotch.....	\$525	\$525	6	4	\$25	\$100	\$125	\$50	\$40	\$25	\$15	\$60	\$20	\$160	\$65
.....	Am.....	408	408	5	4	\$72	20	80	120	60	25	20	6	5	10	422	\$14
Aurora.....	.....	525	.....	.....	600	8	6	144	50	60	180	75	18	20	10	.....	.....	5	30	542	58
.....	.....	576	.....	\$50	626	3	6	96	60	75	150	100	20	40	5	.....	.....	10	50	606	20
.....	.....	405	.....	.....	405	4	7	120	65	50	75	50	20	30	10	.....	.....	10	10	440	35
.....	.....	432	.....	.....	432	6	9	144	58	6	218	105	30	30	10	.....	.....	30	15	640	234
.....	Ger.....	594	.....	.....	594	4	6	84	60	120	144	25	20	50	15	.....	.....	10	25	553	41
Belleville.....	Am.....	450	.....	.....	450	4	3	90	20	85	85	75	22	10	8	.....	.....	20	50	465	15
.....	.....	540	.....	.....	540	6	3	96	15	73	156	50	.....	25	5	.....	.....	40	15	475	65
.....	.....	555	.....	.....	555	3	4	84	43	54	170	45	27	13	3	.....	.....	.....	80	519	36
Champaign.....	.....	480	.....	.....	480	4	4	42	42	.....	180	45	20	20	5	.....	.....	25	18	355	125

Chicago	Ger	513	2	4	132	24	91	179	24	11	10	10	30	9	21	541	28
"	Am.	600	2	4	168	35	65	180	60	10	25	10	16	8	51	600	86
"	Eng.	980	3	6	180	40	70	200	70	30	40	25	10	4	137	1,065	6
"	"	500	6	4	120	42	75	182	40	15	10	3	3	5	10	506	6
"	Scan	775	7	5	144	50	117	200	100	30	50	10	10	4	204	571	...
"	Am.	600	3	3	144	40	50	125	75	30	50	10	10	40	36	564	...
"	"	483	9	4	144	40	75	200	50	20	30	10	10	20	100	583	100
"	"	552	2	3	180	28	120	200	15	15	30	4	4	15	109	681	109
"	"	990	6	4	144	50	40	364	40	15	26	7	7	3	1	689	...
"	"	800	3	7	180	30	85	200	100	25	26	12	12	45	119	681	...
"	"	450	5	4	120	18	...	160	50	10	...	5	5	...	87	363	...
"	"	360	3	3	72	112	60	100	25	10	20	5	5	...	44	404	44
"	"	480	6	3	60	20	125	180	50	25	30	2	2	...	12	492	12
"	"	360	3	3	48	20	60	100	20	12	10	6	6	...	10	270	10
"	"	800	7	2	72	50	...	200	150	...	300	6	6	...	94	706	...
"	Ger	500	2	3	84	30	25	100	100	...	100	20	20	50	28	472	...
"	Scan	600	3	7	84	50	...	200	100	...	...	10	10	15	116	484	...
"	Am.	262	3	7	36	40	40	150	70	20	25	6	6	15	74	450	...
"	Eng.	312	6	4	120	28	30	115	72	16	...	3	3	...	73	312	...
"	Scan	273	3	6	96	35	40	100	50	...	...	4	4	...	...	400	...
"	Am.	432	3	4	96	25	46	90	105	28	65	6	6	30	3	520	88
"	"	540	4	5	54	20	...	115	110	30	85	5	5	10	1	537	...
"	"	360	3	3	75	20	...	170	50	...	...	8	8	40	22	359	...
"	"	480	3	4	78	20	...	200	100	...	...	5	5	8	34	453	...
"	"	520	2	3	...	35	85	180	75	...	5	12	12	25	113	446	...
"	"	600	5	4	...	40	60	200	125	39	8	12	12	16	85	457	...
"	"	352	3	3	72	25	40	125	40	12	4	5	5	15	4	515	...
"	"	720	4	4	72	35	60	250	75	25	5	10	10	5	147	348	...
"	"	405	5	3	72	30	50	150	60	15	6	10	18	5	2	573	33
"	"	330	3	5	...	35	30	130	50	15	6	10	10	15	...	434	...
"	"	243	3	3	72	55	63	180	40	19	5	8	8	15	2	378	...
"	Scan	473	6	2	72	30	50	200	60	18	6	2	2	15	8	460	217
"	Am.	495	5	5	100	45	120	156	60	13	42	5	5	25	23	496	23
"	"	486	5	3	84	50	50	340	15	12	30	15	15	12	113	608	113
"	"	432	10	3	84	40	70	215	100	...	30	4	4	45	55	541	55
"	Ger	552	4	3	96	20	...	160	75	30	20	25	25	40	...	569	...
"	Am.	640	5	4	...	35	...	216	50	25	20	15	15	35	36	516	...
"	"	602	5	4	...	35	...	190	100	35	20	15	15	50	219	421	...
"	"	432	4	4	84	20	60	175	50	35	40	3	3	3	187	415	...
"	Am.	420	3	3	96	18	55	170	85	40	38	8	8	5	53	485	53
"	Can.	566	7	6	...	30	45	240	50	35	75	20	20	25	16	538	118
"	Am.	432	4	4	...	45	60	125	25	20	40	5	5	400	87	550	...
"	Ger	486	5	3	...	45	55	192	36	30	35	5	5	10	83	345	...
"	"	540	4	4	96	35	45	175	60	15	7	10	10	8	217	457	382
"	"	600	3	3	...	23	60	150	75	12	25	2	2	...	80	443	...
"	"	432	3	4	...	40	60	196	25	20	8	8	8	...	167	352	...
"	Am.	600	3	4	...	40	60	150	75	20	8	8	8	25	...	433	...

Painters—Continued.

PLACE.	Nationality.....	ANNUAL EARN- INGS OF—			Total earnings.....	Number in family	Number of rooms occupied	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.....	
		Husband ..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries ...	Clothing....	Boots and shoes	Dry goods...	Books.....	Life insur- ance	Trade unions	Sickness....				Sundries....
Springfield	Am	\$720	.....	.....	\$720	3	4	\$192	\$10	\$45	\$175	\$25	\$15	\$20	\$15	.....	.....	.....	\$50	\$577	\$143	.....
Sterling.....	".....	600	.....	.....	600	5	6	.....	45	75	100	50	5	25	5	.....	.....	.....	10	961	289	.....
.....	.....	450	.....	.....	450	2	3	60	40	50	150	25	20	20	5	.....	.....	.....	1	376	74	.....
Totals	62	\$31,192	\$405	\$1,420	\$33,017	260	261	\$4,429	\$3,826	\$3,257	\$10,532	\$3,912	\$1,106	\$1,686	\$501	\$85	\$115	\$1,623	\$1,536	\$31,108	\$3,684	\$775
Averages .....	.....	503 10	.....	.....	532 53	4.19	4.2	103	57 52	62 63	169 87	63 10	23 57	32 40	8 24	.....	.....	45 18	21 77	485 61	94	84

PAPER CARRIERS.

Chicago.....	Am.....	\$725	.....	.....	\$725	2	3	\$180	\$50	.....	\$110	\$85	.....	.....	.....	.....	.....	.....	.....	\$25	\$765	.....	\$40
.....	.....	864	.....	.....	469	2	2	96	40	\$30	120	50	.....	.....	.....	.....	.....	.....	.....	15	427	.....	.....
Totals.....	2	\$1,089	.....	.....	\$1,214	4	10	\$576	\$90	\$30	\$230	\$135	\$10	\$15	.....	.....	.....	.....	.....	\$15	\$1,192	.....	\$40
Averagee...	544 50	607	2	5	288	45	115	62 50	7 50	506

PAPER HANGERS.

Centralia	Ger	\$675	\$150	\$675
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PAPER MAKERS.

Sterling.....	Ger.....	\$472	\$472	3	4	\$72	\$40	\$50	\$100	\$25	\$30	\$2	\$10	\$5	\$374	\$98
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PATTERN MAKERS.

Aurora.....	Am.....	\$701	\$701	8	6	\$67	\$96	\$300	\$68	\$43	\$15	\$10	\$689	\$12
Belleville.....	Scotch.....	810	810	2	8	75	60	175	75	15	12	15	545	265
Champaign.....	Ger.....	567	.....	.....	567	4	4	.....	25	95	125	50	25	7	.....	50	.....	467	100	....
East St. Louis.....	Am.....	858	.....	.....	858	2	2	\$48	77	.....	365	100	.....	10	.....	.....	.....	631	227	....
Galesburg.....	Scan.....	1,305	.....	.....	1,305	2	8	.....	20	70	180	30	10	20	.....	90	.....	460	845	....
Joliet.....	Ger.....	1,539	.....	\$728	1,539	6	7	.....	50	65	250	160	65	15	.....	65	.....	960	579	....
Mattoon.....	Am.....	858	.....	.....	858	3	3	48	40	60	200	60	30	5	.....	2	.....	539	319	....
Sterling.....	Am.....	648	.....	480	1,128	4	4	.....	25	130	300	75	40	15	.....	15	.....	640	488	....
		750	.....	.....	750	6	2	108	60	100	150	65	40	10	.....	25	.....	603	147	....
Totals.....	9	\$7,308	.....	\$1,205	\$8,516	37	44	\$204	\$439	\$676	\$2,105	\$683	\$268	\$109	\$110	\$212	\$308	\$5,534	\$2,982	....
Averages ..		812	.....	.....	946 22	4.11	4.80	68	48 78	84 50	23 39	75 89	33 50	12 11	.....	23 56	34 22	614 89	331	....

PIANO MAKERS.

Chicago	Ger.....	\$800	.....	.....	\$800	8	8	\$360	\$60	\$75	\$175	\$100	.....	\$5	.....	\$5	.....	\$800	.....	....
		624	.....	.....	624	5	4	84	40	50	150	50	.....	25	.....	.....	.....	597	.....	....
Totals.....	2	\$1,424	.....	.....	\$1,424	13	12	\$444	\$100	\$125	\$325	\$150	\$40	\$30	\$38	\$5	\$90	\$1,397	\$27	....
Averages ..		712	.....	.....	712	6.5	6	222	50	62 50	162 50	75	.....	15	.....	2 50	45	698 50	.....	....

PICTURE FRAME MAKERS.

Chicago.....	Am.....	\$750	.....	.....	\$750	6	4	\$180	\$40	.....	\$200	\$175	.....	\$15	.....	\$5	.....	\$750	.....	....
Moline	Scan.....	780	.....	.....	780	3	4	72	35	\$26	150	100	.....	7	.....	17	.....	502	.....	....
Totals.....	2	\$1,530	.....	.....	\$1,530	9	5	\$252	\$75	\$26	\$350	\$275	\$25	\$22	\$20	\$22	\$90	\$1,252	\$278	....
Averages ..		765	.....	.....	765	45	4	126	37 50	.....	175 137 50	137 50	.....	11	.....	.....	45	626	.....	....

PIT BOSSES.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings.....	Number in family..	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses	Surplus.....	Debt.....		
		Husband ..	Wife	Children...				Rent	Fuel.....	Meat	Groceries....	Clothing.....	Boots and shoes.....	Dry goods...	Books.....	Life insur- ance.....	Trade unions				Sickness.....	Sundries.....
Collinsville.....	Eng.....	\$720	.....	.....	\$720	4	4	\$84	\$12	\$75	\$150	\$120	.....	\$30	\$2	\$5	.....	\$20	\$25	\$523	\$197	.....
Equality	Am.....	550	.....	.....	550	4	4	48	23	61	68	27	\$21	53	6	.....	.....	27	.....	834	216	.....
Mt Pulaski.....	Scotch.....	800	.....	.....	800	7	4	72	.....	72	240	150	30	50	5	15	.....	20	30	684	116	.....
Pontiac	Am.....	720	.....	.....	720	5	8	.....	40	30	175	25	22	75	15	56	.....	5	15	458	262	.....
Streator	Scotch.....	900	.....	.....	900	5	5	.....	15	72	400	100	38	50	50	13	.....	10	25	773	127	.....
Springfield	Eng.....	960	.....	.....	960	5	7	.....	60	120	300	75	30	100	5	.....	.....	50	60	800	160	.....
Totals.....	6	\$4,650	.....	.....	\$4,650	31	32	\$204	\$150	\$430	\$1,333	\$497	\$141	\$358	\$83	\$89	.....	\$132	\$155	\$3,572	\$1,078	.....
Averages ..	.....	775	.....	.....	775	5.16	5.4	68	25	71.66	224.16	82.83	28.20	59.66	13.83	.....	.....	22	25.83	595.83	179	.....

PIT SINKERS.

Alton.....	Eng.....	\$220	.....	\$70	\$290	3	4	.....	\$18	\$50	\$130	\$20	\$12	\$20	\$5	.....	.....	\$10	\$29	\$294	.....	\$4
Gardner .....	.....	472	.....	.....	472	4	5	60	33	84	170	17	32	36	.....	.....	.....	5	10	447	25	.....
Totals.....	2	\$692	.....	\$70	\$762	7	9	\$60	\$51	\$134	\$300	\$37	\$44	\$56	\$5	.....	.....	\$15	\$39	\$741	\$25	\$4
Averages ..	.....	346	.....	.....	381	3.5	4.5	.....	25.50	67	150	18.50	22	28	2.50	.....	.....	7.50	19.50	370.50	.....	.....

PIT TOP-MEN.

Alton.....	Welsh	\$300	.....	\$325	\$625	4	3	\$120	\$20	\$84	\$180	\$60	\$24	\$60	\$3	.....	\$1	\$25	\$150	\$727	.....	\$102
Streator	Am.....	355	.....	.....	355	3	4	96	18	40	200	20	.....	20	3	.....	.....	.....	.....	397	.....	42
Totals.....	2	\$655	.....	\$325	\$980	7	7	\$216	\$38	\$124	\$380	\$80	\$24	\$80	\$6	.....	\$1	\$25	\$150	\$1,124	.....	\$144
Averages ..	.....	327 50	.....	.....	490	3.5	3.5	108	19	62	190	40	.....	40	3	.....	.....	12 50	75	562	.....	72

PLASTERERS.

Alton.....	Am.....	\$436	.....	\$104	\$540	9	6	\$66	\$6	\$80	\$220	\$20	\$25	\$20	\$4	.....	.....	\$25	\$80	\$546	.....	\$6
Aurora	Eng.....	612	.....	100	712	7	7	216	65	144	144	165	25	25	10	.....	.....	.....	10	804	.....	92
Bloomington.....	Scotch.....	432	.....	.....	432	2	6	84	40	30	210	15	10	10	6	.....	\$3	5	15	478	.....	46
Centralla.....	Ger.....	400	.....	.....	400	5	4	.....	25	60	150	30	25	20	6	.....	.....	12	.....	328	.....	.....
.....	Am.....	576	.....	315	891	4	4	.....	40	60	300	100	30	75	10	.....	.....	15	10	640	.....	.....
.....	.....	630	.....	.....	630	3	6	.....	20	85	144	50	15	50	10	.....	.....	.....	75	449	.....	.....
.....	.....	648	.....	.....	648	5	3	60	30	80	180	100	25	60	5	.....	.....	150	60	750	.....	102
Chicago.....	Irish.....	984	.....	.....	984	6	5	150	40	.....	350	150	.....	.....	10	.....	6	40	150	890	.....	.....
.....	.....	912	.....	.....	912	7	5	144	40	.....	350	100	.....	.....	12	.....	6	28	100	800	.....	.....
.....	.....	840	.....	.....	840	6	5	132	30	.....	350	100	.....	.....	12	.....	6	20	100	750	.....	.....
.....	Ger.....	654	.....	.....	654	4	3	108	25	.....	250	75	.....	.....	5	.....	.....	15	100	578	.....	.....
.....	Eng.....	800	.....	.....	800	3	6	240	45	55	208	60	10	25	20	.....	4	50	150	867	.....	67
.....	.....	900	.....	.....	900	4	5	240	35	.....	200	150	.....	.....	15	.....	.....	15	10	665	.....	.....
Danville.....	Irish.....	960	.....	.....	960	5	5	144	40	.....	325	50	20	25	12	.....	5	10	100	751	.....	.....
.....	Am.....	405	.....	50	455	9	4	.....	25	100	150	60	40	35	5	.....	.....	15	.....	430	.....	.....
.....	.....	180	.....	.....	180	4	2	60	12	60	100	20	12	20	2	.....	.....	25	.....	311	.....	131
.....	.....	594	.....	.....	594	5	5	72	25	120	150	60	20	40	5	.....	.....	5	.....	497	.....	.....
Elgin.....	Scan.....	410	.....	.....	450	4	7	.....	40	50	200	30	40	50	.....	.....	.....	.....	40	450	.....	.....
Joliet.....	Irish.....	731	.....	.....	731	2	8	.....	30	90	248	60	18	40	28	.....	12	35	50	631	.....	.....
.....	Am.....	432	.....	10	492	4	3	72	23	79	183	46	20	25	10	.....	.....	.....	30	500	.....	8
Pekin.....	Col.....	400	.....	.....	400	2	1	.....	25	60	150	30	18	25	.....	.....	.....	45	139	492	.....	92
Quincy.....	Am.....	875	.....	.....	875	4	5	144	35	.....	350	100	.....	.....	20	.....	.....	25	.....	674	.....	.....
Sterling.....	Irish.....	540	.....	.....	540	5	7	.....	50	60	200	25	25	25	10	.....	.....	10	5	410	.....	.....
Totals.....	23	\$14,391	\$50	\$579	\$15,020	109	112	\$1,932	\$746	\$1,213	\$5,142	\$1,596	\$378	\$580	\$217	\$75	\$42	\$552	\$1,224	\$13,697	\$1,867	\$544
Averages ..	.....	625 69	.....	.....	653 04	4.73	4.87	128 66	32 43	75 81	223 57	69 39	22 24	34 12	9 43	.....	.....	24 43	53 22	595 52	133	68

Plow Factory Men.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings.....	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus.....	Debt.....		
		Husband ..	Wife	Children...				Rent.....	Fuel.....	Meat	Groceries....	Clothing.....	Boots and shoes.....	Dry goods...	Books.....	Life insur- ance	Trade unions				Sickness.....	Sundries
Galena.....	Ger.....	\$630	.....	\$300	\$930	8	8	.....	\$40	\$50	\$200	\$40	\$60	\$80	\$6	\$18	\$500	\$430	.....	.....
Moline.....	.....	1,430	.....	.....	1,430	4	6	.....	45	75	250	175	25	25	10	10	635	795	.....	.....
".....	Scan.....	500	.....	.....	500	2	6	.....	30	65	175	50	12	6	5	10	373	127	.....	.....
".....	Am.....	550	.....	.....	550	6	5	\$120	40	75	250	60	20	12	10	45	752	.....	.....	.....
".....	".....	412	.....	.....	412	6	5	100	45	50	200	60	25	7	10	15	574	.....	.....	.....
".....	Scan.....	580	.....	.....	580	8	4	.....	30	65	225	75	30	7	10	10	467	.....	.....	.....
Rock Island.....	Am.....	648	.....	.....	648	3	4	.....	20	52	175	40	12	20	12	155	510	133	.....	.....
Totals.....	7	\$4,750	\$300	\$5,050	38	38	\$220	\$250	\$482	\$1,475	\$500	\$184	\$157	\$63	\$93	\$3	\$171	\$263	\$3,811	\$1,603	\$364
Averages	650	721 43 5 43	5 43	5 43	110	35 71	61 71	210 71	71 43	26 29	22 43	9	24 43	37 57	544 43	320	182

Plumbers.

Champaign.....	Am.....	\$1,300	.....	.....	\$1,300	4	6	\$120	\$75	.....	\$247	\$175	.....	.....	.....	.....	.....	.....	.....	\$666	\$634
Chicago	Irish	900	.....	.....	900	2	4	192	45	.....	300	130	.....	.....	10	.....	.....	5	25	707	193
..	Scotch	1,050	.....	.....	1,050	3	3	156	36	\$100	200	60	\$27	\$15	7	.....	.....	10	150	761	289
Peoria.....	Am.	722	.....	.....	722	4	4	.....	30	60	180	70	40	50	10	.....	.....	15	10	465	257
..	..	336	.....	.....	336	4	3	72	16	45	115	40	30	15	4	.....	.....	.....	12	349	.....
..	Scan	600	.....	.....	600	4	4	120	25	75	150	75	60	20	5	.....	.....	.....	30	565	35
..	..	600	.....	.....	600	5	4	120	30	80	175	60	70	40	.....	.....	5	.....	15	605	.....
Rock Island.....	Am.	780	.....	.....	780	7	5	120	30	65	200	150	20	6	10	\$18	.....	10	40	680	91
..	..	600	.....	.....	600	4	4	120	40	65	150	65	20	7	8	.....	.....	20	20	472	328
..	Scotch	1,248	.....	.....	1,248	5	8	72	75	150	300	150	75	50	20	50	.....	30	20	920	328
Totals.....	10	\$8,136	.....	\$200	\$8,336	42	44	\$972	\$412	\$640	\$2,017	\$975	\$342	\$203	\$85	\$68	\$10	\$140	\$335	\$6,199	\$2,155
Averages .....	.....	581 14	.....	.....	595 43	3 3 14	3 3 14	81	29 43	53 33	144 07	69 64	28 50	16 92	6 07	.....	.....	10	23 93	442 79	269 9

POTTERS.

Alton.....	Am.....	\$525	\$525	4	3	\$60	\$18	\$80	\$140	\$60	\$20	\$15	\$8	\$8	\$25	\$20	\$454	\$71
Galea.....	..	324	.....	.....	.....	508	7	4	.....	30	48	160	150	.....	.....	10	.....	.....	14	450	58	.....
Fulton.....	Ger.....	306	.....	.....	.....	306	5	4	.....	34	60	125	60	25	30	3	.....	.....	10	400	.....	\$94
		450	.....	.....	.....	450	4	5	.....	30	70	200	100	.....	.....	5	.....	.....	20	430	20	.....
Totals.....	4	\$1,605	\$184	\$1,789	20	16	\$60	\$112	\$258	\$625	\$370	\$45	\$45	\$26	\$8	\$69	\$116	\$1,734	\$149	\$94
Averages ..		401 25	.....	.....	.....	447 25	5	4	.....	28	64 50	156 25	92 50	22 50	22 50	6 50	.....	16 75	29	433 50	49	.....

PRESSMEN.

Champaign.....	Am.....	\$936	.....	.....	.....	\$936	6	8	.....	\$35	.....	\$204	\$125	.....	.....	\$10	.....	.....	\$10	\$445	\$491	.....
Chicago.....	..	600	.....	.....	.....	600	3	6	\$360	60	.....	180	180	.....	.....	7	.....	.....	80	867	.....	\$267
Totals.....	2	\$1,536	.....	.....	.....	\$1,536	9	14	\$360	\$96	.....	\$384	\$305	.....	.....	.....	.....	.....	\$140	\$1,312	\$491	\$267
Averages ..		768	.....	.....	.....	768	4 5	7	.....	48	.....	192 152 50	.....	.....	.....	8 50	.....	5	70	656	.....	.....

PRINTERS.

Centralla.....	Am.....	\$548	\$548	2	6	\$132	\$25	\$72	\$180	\$50	\$20	\$100	\$10	\$52	\$641	\$93
Champaign.....	..	468	.....	.....	.....	468	4	5	.....	36	75	180	100	18	50	.....	.....	.....	25	556	.....	88
Chicago.....	..	520	.....	.....	.....	520	3	3	72	48	.....	183	35	22	7	.....	.....	15	9	395	.....	.....
..	..	468	.....	.....	.....	468	5	4	96	42	.....	208	90	.....	.....	.....	.....	16	13	408	.....	.....
..	..	520	.....	.....	.....	520	2	4	84	35	.....	175	80	.....	.....	.....	.....	.....	50	427	.....	.....
Eng.....	Eng.....	956	.....	.....	.....	956	5	5	144	40	.....	300	150	.....	.....	.....	.....	.....	25	904	.....	.....
Am.....	Am.....	800	.....	.....	\$416	1,216	5	7	360	55	125	280	100	.....	.....	.....	.....	.....	65	1,015	.....	.....
..	..	600	.....	.....	.....	600	3	3	120	28	.....	250	75	.....	.....	.....	.....	4	200	554	.....	.....
..	..	1,036	.....	.....	.....	1,036	3	4	180	40	65	234	58	11	12	.....	.....	50	20	825	.....	.....
..	..	720	.....	.....	.....	720	6	3	96	50	.....	250	105	18	52	.....	.....	75	183	745	.....	.....
Scan.....	Scan.....	844	.....	.....	.....	844	2	3	180	30	130	130	60	20	10	.....	.....	24	190	621	.....	.....
Am.....	Am.....	475	.....	.....	.....	475	5	3	120	35	110	175	50	.....	25	.....	.....	10	25	700	.....	.....
..	..	580	.....	.....	.....	580	5	4	120	30	.....	300	100	.....	.....	.....	.....	125	44	720	.....	.....
..	..	738	.....	.....	.....	738	9	7	216	60	156	208	300	.....	.....	.....	.....	19	100	1,166	.....	.....
..	..	900	.....	.....	.....	900	3	6	180	40	100	200	300	25	.....	.....	.....	25	75	908	.....	.....
..	..	600	.....	.....	.....	600	3	6	180	35	125	150	250	.....	50	.....	.....	6	5	827	.....	.....

Printers—Continued.

PLACE.	Nationality.	ANNUAL EARN- INGS OF--			Total earnings.....	Number in family.	Number of rooms occupied.	ANNUAL EXPENDITURES FOR--											Total expenses....	Surplus.....	Debt.....		
		Husband...	Wife.	Children...				Rent.	Fuel	Meat.	Groceries....	Clothing.	Boots and shoes.....	Dry goods...	Books.....	Life insur- ance.....	Trade unions	Sickness.....				Sundries.....	
Danville.....	Am.....	\$600	\$600	5	2	\$72	\$50	\$200	\$100	\$200	\$20	\$100	462	\$238	\$20
Jacksonville	700	700	3	3	120	40	\$20	100	100	100	10	246	690	246
Joliet.....	Irish	936	.....	.....	936	6	4	.....	30	.....	240	150	.....	.....	15	.....	.....	.....	25	480	60	.....
Mattoon	Am.....	540	.....	.....	540	2	6	.....	50	100	200	50	.....	.....	15	.....	.....	.....	35	526	74	.....
Moline	Swiss	432	.....	.....	432	3	4	.....	40	104	104	40	.....	.....	10	.....	.....	.....	50	423	9	.....
Pekin.....	Am.....	780	.....	.....	780	2	2	60	35	35	150	100	.....	.....	20	\$12	.....	.....	100	574	206	.....
Sterling.....	.....	416	.....	.....	416	3	4	.....	30	100	200	15	.....	.....	1	.....	.....	.....	60	416	.....	.....
Springfield .....	.....	520	.....	.....	520	7	7	.....	50	100	125	50	.....	.....	10	.....	.....	.....	5	435	85	.....
.....	.....	720	.....	.....	720	5	5	120	40	100	310	20	.....	.....	15	.....	.....	.....	.....	715	5	.....
Totals.....	26	\$17,017	\$50	\$1 226	\$18,283	99	112	\$2,652	\$1,024	\$1,502	\$5,292	\$2,628	\$276	\$878	\$382	\$99	\$78	\$669	\$1,333	\$16,813	\$2,042	\$562	
Averages	654 50	703 58	3 81	4 31	139 57	39 38	93 87	203 54	101 08	20 77	51 65	14 65	25 73	51 27	647 04	113	93	

PRISON GUARD.

Joliet	Am.....	\$510	\$510	2	4	\$35	\$25	\$120	\$15	\$23	\$28	\$6	\$18	\$10	\$23	\$333	\$207
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PUDDLERS.

Centralia	Am.....	\$624	\$624	3	4	\$96	\$30	\$60	\$170	\$60	\$25	\$50	\$5	\$4	\$60	\$560	\$64	\$3
Chicago.....	Irish.....	520	\$640	1,160	6	6	144	50	640	160	25	40	80	1,168	
East St. Louis...	Am.....	1,000	.....	.....	1,000	3	2	.....	30	100	150	50	25	50	5	.....	.....	20	75	505	495	.....	.....
..	Welsh	1,000	.....	\$421	1,421	6	3	132	35	150	300	50	25	75	10	.....	.....	50	75	902	519	.....	.....
Totals.....	4	\$3,144	\$640	.....	\$1,205	18	15	\$372	\$145	\$310	\$1,260	\$320	\$75	\$175	\$15	.....	.....	\$114	\$290	\$3,130	\$1,078	\$3	.....
Averages .....	.....	786	.....	.....	\$1051 25	4.5	3.75	124	36 25	103 33	315	80	25	58 33	11 25	.....	.....	28 50	72 50	782 50	359	.....	.....

PUDDLER'S HELPER.

Centralia.....	Am.....	\$504	\$255	\$759	4	5	\$36	\$182	\$180	\$75	\$35	\$50	\$10	\$5	\$30	\$603	\$156
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QUARRYMEN.

Alton.....	Irish.....	\$410	\$410	6	4	\$72	\$20	\$60	\$180	\$20	\$16	\$20	\$3	\$18	\$409	\$1
.....	Am.....	414	414	7	3	48	18	80	185	25	17	18	4	5	405	9
Aurora.....	Ger.....	504	.....	\$100	604	6	6	120	50	100	175	50	25	40	15	.....	.....	.....	10	595	9	.....	.....
Joliet.....	Scan.....	315	\$75	75	465	8	5	84	35	60	205	55	35	30	5	.....	.....	.....	30	579	.....	\$114	.....
.....	Irish.....	360	.....	375	735	6	2	.....	40	80	250	40	30	25	5	.....	.....	.....	35	531	204	.....	.....
Totals.....	5	\$2,003	\$75	\$550	\$2,628	33	20	\$324	\$163	\$380	\$995	\$190	\$123	\$133	\$32	\$21	.....	\$60	\$98	\$2,519	\$223	\$114	.....
Averages	400 60	525 60	6.6	4	81	32 60	76	99	38	24 60	26 60	6 40	12	9 60	502 80	55

RAG SORTER IN PAPER MILL.

Moline.....	Scan.....	\$240	\$240	5	3	\$24	\$200	\$35	\$10	\$5	\$25	\$299	\$59
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REFINER (Gas.)

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings ...	Number in family.	Number of rooms occupied	ANNUAL EXPENDITURES FOR—													Total expenses....	Surplus	Debt.....
		Husband ..	Wife	Children ..				Rent	Fuel	Meat	Groceries ..	Clothing ...	Boots and shoes	Dry goods...	Books	Life insurance	Trade unions	Sickness.....	Sundries				
East St. Louis...	Irish	\$730	\$730	2.	3	\$120	\$24	\$60	\$144	\$40	\$20	\$20	\$7	\$6	\$25	\$466	\$264		

RIVER PILOT.

Peoria.....	Am.....	\$640			\$640	3	4		\$35		\$180	\$48	\$30	\$25	\$10			\$25	\$25	\$370	\$170
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ROLLERS.

Belleville.....	Ger.....	\$864	\$864	5	3	\$84	\$25	\$75	\$125	\$50	\$23	\$25	\$10	\$6	\$50	\$50	\$325	\$339
East St. Louis.....	Am.....	2,200	2,200	6	6	75	160	300	75	40	50	10	25	75	800	1,400
".....	Welsh.....	1,000	.....	\$421	1,421	5	5	204	45	150	300	50	25	75	10	.....	.....	.....	75	934	457
".....	".....	1,776	.....	.....	1,776	7	5	168	45	150	300	50	30	50	8	.....	.....	50	75	921	855
".....	Am.....	2,200	.....	.....	2,200	5	3	130	40	125	200	55	35	60	8	.....	.....	50	76	768	1,432
Totals.....	5	\$8,040	.....	\$421	\$8,461	28	22	\$576	\$230	\$650	\$1,225	\$280	\$155	\$260	\$41	..	\$6	\$175	\$350	\$3,918	\$4,513
Averages.....	.....	1,603	.....	.....	1,692.20	5.4	4.4	144	46	130	245	56	31	52	8.20	..	..	35	70	589.60	902

ROLLING MILL HANDS.

Chicago.....	Irish.....	\$420	.....	\$400	\$820	5	4	\$168	\$40	.....	\$325	\$160	.....	.....	.....	\$20	.....	\$5	\$15	\$30	\$763	\$57
Joliet.....	..	750	.....	.....	750	4	5	84	60	.....	300	75	.....	\$25	\$30	1	.....	10	15	20	700	50
".....	..	321	.....	324	648	8	8	.....	60	80	300	60	.....	40	35	27	.....	.....	20	35	657	\$9
".....	..	261	.....	450	711	4	5	.....	45	80	250	30	.....	25	20	10	\$6	.....	30	20	536	.....
".....	..	520	.....	.....	520	6	4	.....	39	60	300	25	.....	25	5	5	.....	6	28	5	513	7
Totals.....	5	\$2,275	.....	\$1,174	\$3,449	27	26	\$252	\$244	\$300	\$1,475	\$350	.....	\$115	\$125	\$63	\$6	\$21	\$108	\$110	\$3,169	\$289
Averages.....	.....	455	.....	.....	689 60	5.4	5.2	126	48 80	75	295	70	.....	28 75	31 25	12 60	...	...	21 60	22	633 80	72
																						...

ROUGHERS.

East St. Louis.....	Eng.....	\$1,110	.....	.....	\$1,100	2	4	\$168	\$15	\$125	\$190	\$45	.....	.....	.....	\$2	.....	.....	\$25	\$60	\$730	\$380
".....	Irish.....	1,110	.....	.....	1,110	4	3	96	35	125	210	40	.....	15	25	7	.....	.....	10	50	613	497
Totals.....	2	\$2,220	.....	.....	\$2,220	6	7	\$264	\$80	\$250	\$400	\$85	.....	\$35	\$75	\$9	.....	.....	\$35	\$110	\$1,343	\$877
Averages.....	1,110	1,110	3	3.5	132	40	125	200	42 50	17 50	37 50	4 50	17 50	55	671 50	438

SALT MAKER.

DuQuoin.....	Am.....	\$780	\$780	3	7	\$126	\$15	\$20	\$50	\$75	\$12	\$50	\$11	\$7	\$15	\$10	\$385	\$395
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SAW FILER.

Moline.....	Sean'.....	\$580	\$580	5	3	\$18	\$60	\$225	\$65	\$25	\$6	\$5	\$10	\$25	\$439	\$141
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SAWYERS.

Place.	Nationality.....	ANNUAL EARNINGS OF—			Total earnings.....	Number in family..	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses.....	Surplus.....	Debt.....
		Husband..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries..	Clothing....	Boots and shoes.....	Dry goods ..	Books.....	Life Insurance.....	Trade unions	Sickness....	Sundries	
Chicago.....	Can.	\$624	.....	\$800	\$624	5	3	\$108	\$48	\$130	\$155	\$40	\$17	\$10	\$9	\$20	.....	\$14	\$48	\$500
"	Am.	540	.....	.....	1,346	7	6	108	65	150	450	150	45	150	40	45	.....	50	16	1,342
"	Irish	750	.....	.....	750	5	4	120	40	100	200	50	25	25	15	18	.....	80	100	1,727
Danville.....	Am.	600	.....	.....	600	8	2	.....	50	.....	250	150	.....	150	.....	.....	.....	.....	.....	606
Galena.....	"	300	.....	.....	300	5	5	.....	35	30	150	100	.....	.....	.....	.....	.....	25	30	380
Moline.....	"	357	.....	.....	387	4	3	22	30	60	160	50	15	4	5	.....	.....	10	10	401
"	"	400	.....	.....	400	2	4	120	35	25	175	80	10	10	5	.....	.....	75	50	565
Rock Falls.....	"	510	.....	.....	510	6	4	.....	45	75	150	75	35	25	5	.....	.....	25	1	435
Totals...	8	\$4,237	.....	.....	\$5,037	42	31	\$358	\$348	\$576	\$1,681	\$685	\$147	\$374	\$91	\$83	\$17	\$222	\$285	\$5,057
Averages.....	.....	529.62	.....	.....	629.62	7.3	87	117.60	43.75	83.28	210.12	86.87	24.50	58.43	11.37	.....	.....	27.75	29.37	632.12

SEAMEN.

Place.	Nationality.....	ANNUAL EARNINGS OF—			Total earnings.....	Number in family..	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses.....	Surplus.....	Debt.....
		Husband..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries..	Clothing....	Boots and shoes.....	Dry goods ..	Books.....	Life Insurance.....	Trade unions	Sickness....	Sundries	
Chicago.....	Eng.	\$380	.....	.....	\$380	2	4	\$144	\$40	\$25	\$90	\$5	\$8	\$20	\$1	\$13	.....	\$6	\$20	\$365
"	"	380	.....	.....	380	2	4	144	20	49	70	15	8	5	.....	9	.....	10	10	520
Totals.....	2	\$760	.....	.....	\$760	4	8	\$288	\$80	74	\$150	\$20	\$16	\$25	\$2	\$16	\$5	\$16	\$30	\$704
Averages.....	.....	380	.....	.....	380	2	4	144	30	37	75	10	8	12.50	2	.....	.....	8	15	362

SHOEMAKERS.

PLACE.	Nationality	ANNUAL EARNINGS OF			ANNUAL EXPENDITURES FOR—											Total earnings.	Debt.....		
		Husband	Wife	Children	Rent	Fuel	Meat	Groceries	Clothing	Boots and shoes.	Dry goods	Books	Life insurance	Trade unions	Sickness			Sundries ..	
Aurora	Ger	\$624			\$34	\$75	\$40	\$100	\$10	\$11	\$60	\$1			\$2	\$20	\$475	\$140	
Albion	Am	675				36	50	150	40	30	25	6			30	75	401	374	
Contra Costa	Ger	624				40		150	45	15	10				40	90	620	141	
Chenango		468				35		168	45	11	6				40	25	301	167	
"	Irish	468		\$231		50		400	180	11	9				10	34	585	36	
"	Am	390				57	144	152	23	11	20				10	66	308	4	
Clatsop	Irish	710		200		60		400	30	25	20				50	12	797		\$97
"	Irish	410				42		107	47		20				10	3	681		
Equity	Ger	450				24		55	27	15	15				11	30	445		
"	Ger	470		75		42	48	80	40	15	15				90	11	281		
Flintport		468				25	50	54	40						30	11	450		
Galesburg		282				30	20	100	80							11	327		18
"		300				25	60	140	10							15	345		
"		360				30	50	100	20							25	300		
Galesburg	Irish	468				40	50	112	50		25					43	300		
"	Irish	408				30	35	100	14	15	15					30	230		12
Jacksonville	Scot	408				30	35	100	14	15	15					30	200		
Joilet	Ger	624				108		250	125	10	10					50	708	26	24
"	Ger	900	\$300			35	25	200	1		16					25	624		
Moline	Scot	624				50	50	250	40	30	40					30	620	104	
"	Scot	721				50	50	200	40	20	11					30	721		
Peoria	Am	468				35	55	240	60	18	12					15	583		119
"	Am	336				16	40	110	60	25	10					15	370		40
Pontiac	French	430		40		18	40	100	50	40	35					10	438		12
"	Am	1,000		50		48		200	70	40	35					50	703	37	
"	Am	600		50		40	100	240	50	15	50					25	545	55	
"	Am	600				40	150	175	40	20	180					35	682		85
Rock Island	Ger	600		10		30	65	150	20	15	50					40	710	81	
Sterling		525				70	75	150	25	20	20					1	453	122	
Totals.	32	\$14,957	\$2,300	\$1,072	\$1,408	\$1,255	\$1,497	\$5,530	\$1,746	\$719	\$975	\$251	\$81	\$43	\$764	\$800	\$14,000	\$2,608	\$498
Averages		467.40			44.00	39.53	46.78	167.18	54.56	20.76	30.42	7.81			24.78	26.87	458.41	127	45

SILVER PLATER.

Chicago	Am.....	\$320	\$320	5	2	\$48	\$25	\$30	\$125	\$20	\$30	\$25	\$3	\$4	\$10	\$320
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SHOOTER (COAL).

Collinsville.....	Am.....	\$720	\$720	5	4	\$78	\$23	\$90	\$190	\$40	\$30	\$50	\$5	\$41	\$35	\$582	\$138
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SODA WATER MAKER.

Champaign.....	Ger	\$780	\$780	4	6	\$100	\$50	\$75	\$150	\$150	\$25	\$15	\$50	\$25	\$640	\$140
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SPINNER.

Alton.....	Am.....	\$270	\$432	\$702	9	5	\$96	\$25	\$100	\$240	\$40	\$35	\$40	\$6	\$20	\$100	\$702
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STAIR BUILDER.

Jacksonville.....	Am.....	\$604	\$604	\$604	2	4	\$120	\$35	\$156	\$130	\$5	\$10	\$12	\$468	\$136
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STATION AGENTS.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.....	
		Husband ..	Wife.	Children...				Rent.....	Fuel.....	Meat.....	Groceries....	Clothing.....	Boots and shoes.....	Dry goods..	Books.....	Life insur- ance.....	Trade unions	Sickness ...				Sundries
Belleville.....	Am.....	\$1,080	.....	.....	\$1,080	3	4	\$162	\$40	.....	\$191	\$20	\$35	\$15	\$5	.....	.....	\$20	\$202	\$690	\$300	.....
East St. Louis...	".....	1,080	.....	.....	1,080	2	2	48	50	\$125	317	75	15	75	10	.....	.....	15	100	830	250	.....
Gardner	".....	540	.....	.....	540	5	4	84	50	48	72	100	25	25	.....	.....	.....	25	.....	429	111	.....
Pontiac.....	".....	780	.....	.....	780	2	6	.....	70	20	50	60	15	40	10	.....	.....	25	65	355	425	.....
Totals.....	4	\$3,480	.....	.....	\$3,480	12	16	\$244	\$210	\$193	\$630	\$255	\$90	\$155	\$25	.....	.....	\$85	\$367	\$2,304	\$1,176	.....
Averages .....	.....	870	.....	.....	870	3	4	98	52	64	157	63	22	38	6	.....	.....	21	91	576	291	.....

STONE MASONS.

Alton.....	Eng.....	\$432	.....	.....	\$432	2	3	.....	\$20	\$75	\$264	\$25	\$20	\$15	\$1	.....	.....	\$50	\$45	\$515	.....	\$83
Bloomington...	Ger.....	300	.....	.....	300	2	6	.....	25	50	150	20	10	15	2	.....	.....	30	.....	275	\$25	24
.....	Irish	650	.....	.....	650	4	5	\$114	60	100	200	20	25	75	20	.....	.....	10	.....	674	.....	.....
Chicago.....	Can.....	648	.....	.....	648	5	3	48	30	150	225	80	30	35	5	.....	.....	10	10	627	21	.....
East St. Louis...	Ger.....	630	.....	.....	630	5	6	.....	30	100	175	45	20	25	1	.....	.....	50	50	496	134	.....
.....	.....	630	.....	.....	630	4	3	120	20	100	150	20	10	15	2	.....	.....	25	50	512	118	.....
Fulton	Irish	640	.....	.....	640	8	3	.....	20	25	350	150	.....	.....	5	.....	.....	12	13	575	65	.....
Galena.....	Ger.....	216	.....	.....	216	2	5	.....	32	36	100	50	.....	.....	2	.....	.....	13	122	400	.....	184
.....	.....	351	.....	.....	351	3	6	.....	38	60	168	120	20	25	8	.....	.....	10	56	450	.....	99
Joliet	Eng.....	612	.....	.....	612	7	6	144	45	75	250	40	40	25	3	.....	\$3	.....	12	647	.....	85
Moline	Ger.....	535	.....	.....	535	5	4	84	30	60	160	60	18	6	4	.....	.....	25	35	482	93	.....
Rock Island....	".....	306	.....	.....	306	6	6	.....	25	52	230	50	30	35	8	\$20	.....	.....	100	553	.....	157
.....	".....	702	.....	.....	702	4	4	96	30	60	200	100	18	7	5	.....	.....	15	15	546	156	.....
.....	".....	300	.....	.....	300	3	4	.....	30	50	150	75	18	6	5	.....	.....	.....	15	349	41	.....
.....	French	420	.....	.....	420	9	4	.....	35	100	200	125	40	8	10	.....	.....	.....	40	558	72	.....
.....	Am.....	363	.....	.....	363	5	3	.....	23	.....	240	35	35	35	6	.....	.....	25	14	415	.....	52
.....	.....	379	.....	.....	379	5	7	.....	30	.....	250	35	35	40	5	.....	.....	.....	20	418	.....	99

Sterling	Am.	375	.....	5	375	3	5	.....	50	50	100	28	25	35	10	.....	10	.....	318	57	.....
.....	Scotch	206	.....	5	.....	4	5	.....	30	30	100	90	40	25	5	.....	25	.....	281	25	.....
Totals	19	\$8,875	\$40	89	\$636	86	89	\$602	\$1,173	\$3,662	\$1,108	\$434	\$427	\$106	\$20	\$12	\$903	\$608	\$9,091	\$807	\$673
Averages		467 21	4.76	106	31 68	69	192 74	57 26	25 53	25 12	5 58	15 95	32	478 47	73	84

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STONE CUTTERS.

Alton	Am.	\$350	4	\$36	2	4	\$9	\$33	\$102	\$45	\$12	\$7	\$2	\$11	\$12	\$269	\$106
Chicago	Ger.	375	4	72	4	4	20	60	180	15	12	10	1	5	375
.....	Irish	840	.....	3	108	4	3	.....	30	.....	250	75	40	50	15	.....	20	100	601	230	.....
.....		1,008	.....	5	144	6	5	.....	40	.....	400	100	.....	.....	10	.....	25	100	914	94	.....
.....	Ger.	744	.....	3	108	4	3	.....	30	.....	250	75	.....	.....	10	.....	15	100	598	151	.....
.....	Irish	882	.....	5	132	6	5	.....	30	.....	275	125	.....	.....	5	.....	25	100	692	190	.....
Galesburg	Am.	768	.....	4	120	5	4	.....	30	.....	300	150	.....	.....	10	.....	.....	100	715	53	.....
.....	Am.	600	.....	4	96	2	4	.....	40	35	110	100	30	80	6	.....	30	40	587	13	.....
.....	Scan.	432	.....	5	96	5	5	.....	30	30	105	100	35	90	5	.....	40	29	560	175	\$128
Moline	Am.	765	.....	4	120	4	5	.....	35	115	175	80	16	9	10	.....	10	50	590	107	.....
.....	Am.	840	.....	5	120	4	5	.....	55	50	215	60	20	15	10	.....	25	75	788	107	.....
.....	Scan.	720	.....	4	.....	5	4	.....	35	50	200	75	20	8	8	.....	.....	15	411	309	.....
Peoria	Ger.	420	.....	4	96	4	4	.....	20	50	150	60	40	10	.....	.....	8	20	454	.....	34
.....	Irish	420	.....	3	84	3	3	.....	24	60	140	40	30	50	5	.....	10	20	463	.....	43
.....	Am.	378	.....	4	72	4	4	.....	16	40	100	30	20	30	.....	.....	.....	15	323	55	.....
Quincy	Am.	500	.....	4	84	4	4	.....	30	50	140	20	30	60	6	.....	10	65	500	.....	.....
Rock Island	Am.	637	.....	2	84	2	2	.....	20	.....	276	60	10	.....	12	.....	20	15	533	104	.....
.....		720	.....	2	60	2	2	.....	25	30	175	100	15	4	4	.....	25	35	483	237	.....
.....		840	.....	3	108	5	3	.....	35	70	200	100	25	10	10	.....	25	50	638	202	.....
.....		480	.....	4	96	5	4	.....	35	65	175	125	18	8	5	.....	.....	15	547	.....	67
.....		624	.....	4	72	4	4	.....	35	60	155	75	20	8	8	.....	40	40	523	101	.....
.....		609	.....	4	108	6	4	.....	26	.....	236	55	35	32	2	.....	75	30	599	10	.....
.....	Eng.	624	.....	5	.....	8	5	.....	25	52	260	70	48	40	15	.....	.....	91	625	.....	1
.....	Ger.	546	.....	4	.....	6	4	.....	28	80	220	30	40	75	5	.....	25	46	554	.....	8
.....	Irish	538	.....	7	.....	7	7	.....	30	75	330	60	40	50	6	.....	18	50	603	.....	15
.....		588	.....	5	.....	5	5	.....	30	.....	240	45	25	60	19	.....	27	28	552	36	.....
.....	Scotch	588	.....	4	.....	5	4	.....	28	75	360	80	.....	35	.....	.....	40	35	578	10	.....
.....		672	.....	5	.....	9	5	.....	26	75	300	50	50	40	14	.....	15	70	652	20	.....
Totals	28	\$15,553	\$25	130	\$2,016	116	130	.....	\$817	\$1,090	\$6,019	\$2,000	\$631	\$781	\$203	\$139	\$544	\$1,346	\$15,667	\$2,212	\$272
Averages		627 07	.....	4.64	96	29 18	57 37	.....	29 18	57 37	214 96	71 43	27 43	32 53	7 25	.....	18	48 07	559 54	116	42

STOVE MOUNTERS.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings.....	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—											Total expenses....	Surplus	Debt.....	
		Husband ..	Wife.....	Children...				Rent.....	Fuel.....	Meat.....	Groceries ...	Clothing.....	Boots and shoes	Dry goods...	Books.....	Life insur- ance	Trade unions	Sickness.....				Sundries.....
Rock Island.....	Am.....	\$433 408	.....	.....	\$433 408	3 2	3 4	\$48 84	\$13 20	.....	\$192 192	\$40 50	\$15 15	\$30	\$5	\$16	\$3 3	\$8	\$40 25	\$410 389	\$23 19	.....
Totals.....	2	\$841	.....	.....	\$841	5	7	\$132	\$33	.....	\$394	\$90	\$30	\$30	\$5	\$16	\$6	\$8	\$65	\$799	\$42	.....
Averages .....	.....	420 50	.....	.....	420 50	2.5	3.5	66	16	.....	192	45	15	.....	2 50	.....	.....	4	32 50	399 50	21	.....

STREET CAR CONDUCTORS.

Chicago.....	Am.....	\$690 700	.....	.....	\$690 700	4 7	4 5	\$120 180	\$60 250	.....	\$280	\$150 145	.....	.....	.....	.....	.....	\$5 10	\$20 20	\$40 75	\$690 695	.....
"	Irish	780	.....	.....	780	6	5	216	45	.....	215	175	.....	.....	.....	.....	.....	4	5	20	680	.....
"	Ger..	728	.....	.....	728	7	4	144	22	\$70	190	150	.....	.....	.....	.....	.....	30	150	100	756	.....
"	"	700	.....	.....	700	6	3	96	15	.....	350	90	.....	.....	.....	.....	.....	75	100	.....	827	.....
"	Irish	672	.....	.....	672	9	5	204	20	.....	400	50	.....	.....	.....	.....	.....	10	.....	.....	684	.....
"	"	576	.....	.....	576	7	4	84	15	.....	184	26	\$10	\$10	.....	.....	.....	5	243	.....	576	.....
"	"	700	.....	.....	700	5	3	96	15	.....	340	75	.....	.....	.....	.....	.....	100	50	.....	677	.....
"	"	700	.....	.....	700	8	4	180	20	.....	400	100	.....	.....	.....	.....	.....	40	55	.....	800	.....
"	Am.....	738	.....	.....	738	8	4	144	20	.....	384	150	.....	.....	.....	.....	.....	100	100	.....	898	.....
Totals.....	10	\$6,984	.....	.....	\$7,284	67	41	\$1,464	\$482	\$70	\$2,743	\$1,110	\$10	\$10	\$37	.....	\$19	\$405	\$833	\$7,183	\$328	\$227
Averages.....	.....	698 40	.....	.....	728 40	6.7	4.1	146 40	48 20	.....	304 77	111	.....	.....	3 70	.....	.....	40 50	83 30	718 30	82	56

STREET CAR DRIVERS.

Aurora.....	Am.....	\$375	.....	.....	3	3	\$60	\$35	\$84	\$100	\$20	\$10	\$25	\$5	.....	.....	\$359	\$16	.....	\$7
Chicago.....	Irish.....	756	.....	.....	7	6	240	18	.....	332	150	.....	.....	5	.....	.....	763	.....	.....	.....
".....	".....	819	.....	\$1,200	5	7	210	75	.....	400	150	50	75	50	.....	.....	1,990	29	.....	.....
".....	".....	895	\$55	.....	10	4	90	60	.....	425	240	.....	.....	10	\$5	.....	950	.....	.....	.....
".....	Ger.....	738	.....	.....	5	3	144	17	.....	300	100	.....	.....	5	.....	.....	666	72	.....	.....
".....	Am.....	648	.....	.....	6	5	144	22	.....	168	25	18	120	3	.....	.....	548	100	.....	.....
".....	".....	538	.....	.....	6	4	120	35	.....	165	100	.....	.....	5	5	.....	528	10	.....	.....
".....	Ger.....	608	.....	.....	4	4	.....	28	135	200	26	.....	55	18	.....	.....	507	101	.....	.....
".....	".....	700	.....	.....	4	3	96	20	.....	300	100	.....	50	3	\$15	.....	704	.....	.....	4
Dunville.....	Am.....	546	.....	.....	3	5	.....	30	.90	150	50	20	30	.....	.....	.....	395	151	.....	.....
".....	Irish.....	400	.....	.....	2	2	.....	20	.....	50	40	.....	50	.....	.....	.....	170	230	.....	.....
Totals.....	11	\$7,023	\$55 \$1,200	\$8,278	55	46	\$1,134	\$360	\$309	\$2,590	\$1,001	\$98	\$405	\$104	\$15	\$10	\$7,580	\$709	\$11	.....
Averages,...	.....	638 45	.....	743 45	5	4.18	141 75	32 73	103	235 45	91	24 50	57 86	9 45	.....	.....	689 09	88	5	.....

SWITCHMEN.

Danville.....	Irish.....	\$480	.....	\$480	6	4	\$150	\$20	.....	\$150	\$50	\$20	.....	.....	.....	.....	\$490	.....	\$10
East St. Lous.....	Am.....	728	.....	728	3	3	120	20	\$60	180	50	25	\$10	\$15	.....	.....	560	\$168	.....
Mattoon.....	".....	660	.....	660	4	4	.....	30	150	200	75	15	15	3	.....	.....	518	142	.....
Totals.....	3	\$1,868	.....	\$1,868	13	11	\$270	\$70	\$210	\$550	\$175	\$60	\$55	\$18	.....	.....	\$1,568	\$310	\$10
Averages.....	.....	622 66	.....	622 66	4.33	3.66	135	23 33	105	176 66	58 33	20	27 50	6	.....	.....	522 66	155	.....

TAILORS.

Champaign.....	Irish.....	\$624	\$180	\$1,304	7	18	.....	\$50	.....	\$364	\$225	.....	.....	\$20	.....	.....	\$854	\$450	.....
Chicago.....	Bohemian	624	.....	624	2	4	.....	63	.....	156	55	\$18	.....	4	.....	.....	371	253	.....
".....	Ger.....	600	.....	600	6	4	\$108	30	.....	400	150	.....	.....	.....	.....	888	.....	\$288	.....
".....	".....	900	400	1,300	6	5	.....	80	\$200	275	90	.....	95	10	\$40	.....	875	425	141
".....	Irish.....	420	.....	420	5	5	228	30	.....	200	75	35	.....	8	.....	561	.....	.....	.....
Danville.....	Am.....	600	.....	600	5	5	78	25	100	120	75	25	40	6	.....	469	131	.....	.....
Galesburg.....	Scan.....	480	.....	480	4	3	96	30	35	120	50	30	80	5	.....	471	9	.....	70
Jacksonville.....	Scan.....	600	.....	600	3	4	.....	40	.....	250	150	.....	.....	10	100	670	.....	.....	.....
".....	Ger.....	400	.....	400	6	5	.....	36	.....	200	60	.....	.....	10	.....	354	46	.....	.....
".....	".....	400	.....	774	7	5	120	36	.....	250	200	.....	.....	15	.....	711	63	.....	.....

EARNINGS AND EXPENSES.

TEAMSTERS.

[illegible]

STATISTICS OF LABOR.

Teamsters—Continued.

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt.....		
		Husband ..	Wife	Children ..				Rent.....	Fuel	Meat.....	Groceries ...	Clothing.....	Boots and shoes	Dry goods...	Books	Life insur- ance	Trade unions				Sickness	Sundries
Moline	Am.....	\$420	.....	.....	\$120	7	3	\$54	\$35	\$65	\$190	\$65	\$18	\$6	\$6	\$12	.....	\$25	\$15	\$479	\$59
"	Ger.....	480	.....	.....	480	6	4	100	25	75	200	150	.....	7	10	.....	.....	25	10	614	134
"	Irish.....	600	600	2	4	35	50	200	70	20	4	10	40
"	Scan.....	480	.....	.....	480	2	3	96	25	60	125	50	18	11	5	.....	.....	10	25	425	.....
Pekin.....	Ger.....	720	.....	.....	720	5	2	70	15	.....	180	75	40	.....	.....	25	.....	.....	130	470	.....
Pontiac.....	Am.....	864	.....	.....	864	5	5	.....	45	30	240	25	18	100	21	25	.....	15	20	560	.....
Peoria	Ger.....	480	.....	.....	480	4	3	.....	30	73	140	25	.....	21	.....	.....	.....	15	25	355	.....
"	Am.....	484	.....	.....	484	2	3	84	24	.....	175	75	.....	.....	.....	.....	.....	.....	35	398	.....
"	Irish.....	480	.....	.....	480	3	3	84	25	.....	160	100	.....	.....	.....	.....	.....	25	35	434	.....
"	Am.....	468	.....	.....	468	3	3	.....	3	.....	200	35	20	15	.....	.....	.....	.....	25	330	.....
"	Ger.....	432	.....	.....	432	6	3	72	18	40	100	40	30	35	.....	.....	.....	.....	15	353	.....
"	Irish.....	496	.....	.....	496	2	3	.....	25	.....	180	30	20	15	.....	.....	.....	.....	25	300	.....
"	Am.....	525	.....	.....	525	4	4	120	20	75	180	80	75	60	10	.....	.....	15	25	668	143
Rock Island.....	"	480	.....	.....	480	4	4	66	23	.....	240	65	20	40	2	.....	.....	20	15	454	.....
"	"	360	.....	.....	360	10	3	72	23	.....	300	60	.....	.....	.....	.....	.....	20	10	529	43
"	Ger.....	600	.....	.....	600	3	4	.....	35	60	150	100	20	8	.....	.....	.....	20	35	586	.....
"	Irish.....	825	.....	.....	1,197	11	5	120	40	150	420	120	65	100	15	.....	.....	250	50	1,213	.....
Springfield	Am.....	420	.....	.....	420	3	3	43	22	104	180	40	.....	.....	.....	.....	.....	10	.....	419	.....
Totals.....	66	\$30,359	\$31,983	279	218	\$3,130	\$1,685	\$2,788	\$10,517	\$3,953	\$1,027	\$1,182	\$304	\$95	\$24	\$1,294	\$1,995	\$28,724	\$4,330	1071
Averages.....		459 97	484 59	4 23	3 3	81 49	25 52	60 61	220 41	59 89	25 28	29 55	4 68	19 55	30 23	435 21	114	48

TILE MAKERS.

Mattoon.....	Am.....	\$480	.....	.....	\$480	2	3	\$72	\$30	\$60	\$110	\$40	\$12	\$10	\$3	.....	.....	.....	\$25	\$362	\$118	.....
"	"	432	.....	.....	432	6	4	72	35	35	180	25	15	45	5	.....	.....	.....	15	437	.....	\$5
Pontiac.....	Ger.....	468	.....	.....	568	6	3	.....	31	.....	260	125	50	25	15	.....	.....	.....	39	545	23	.....
Urbana.....	" .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	3	\$1,380	.....	.....	\$1,480	14	10	\$144	\$96	\$95	\$550	\$190	\$77	\$80	\$23	.....	.....	\$10	\$79	\$1,344	\$141	\$5
Averages.....		460	.....	.....	493 33	4 66	3 33	72	32	47 50	183 33	63 33	25 66	26 66	7 66	.....	.....	.....	26 33	448	71	.....

TINNERS.

Aurora.....	Am.....	\$700	3	\$192	\$60	\$90	\$160	\$35	\$18	\$50	\$10	\$12	.....	\$10	\$15	\$640	\$60	.....	\$1
Belleville.....	Ger.....	360	6	84	7	90	156	25	30	15	2	.....	.....	20	20	461	22	.....	.....
Champaign.....	Am.....	540	3	84	12	70	190	50	25	15	2	.....	.....	50	20	518	20	.....	.....
..	..	468	8	.....	25	.....	208	135	.....	.....	.....	.....	.....	55	25	448	20	.....	.....
..	..	624	5	.....	28	.....	216	108	.....	.....	.....	29	.....	15	109	505	119	.....	.....
Chicago.....	Eng.....	520	10	84	64	.....	365	237	.....	.....	14	.....	.....	35	10	809	.....	.....	167
..	..	825	4	132	40	75	200	50	40	75	12	18	.....	25	150	817	8	.....	.....
Danville.....	Am.....	768	4	.....	45	156	225	45	39	62	17	.....	.....	27	40	661	107	.....	.....
Galena.....	..	600	3	.....	50	60	200	25	25	40	6	.....	.....	100	.....	506	94	.....	.....
..	..	450	8	.....	35	75	170	150	.....	.....	5	.....	.....	.....	15	450	.....	.....	.....
Galesburg.....	..	660	6	.....	75	96	200	175	.....	.....	6	55	.....	10	33	650	780	.....	.....
..	..	648	2	.....	35	80	120	90	30	8	5	.....	.....	30	60	418	230	.....	.....
Jacksonville.....	..	552	3	72	30	.....	250	125	.....	.....	5	.....	.....	10	25	517	35	.....	.....
..	..	702	4	78	30	.....	210	100	.....	.....	5	.....	.....	20	25	468	234	.....	.....
Joliet.....	Ger.....	702	7	.....	45	45	250	45	25	25	3	.....	.....	25	30	493	209	.....	.....
Mattoon.....	Am.....	806	4	96	40	78	182	40	.....	20	11	.....	.....	10	30	507	299	.....	.....
..	Irish.....	520	4	.....	45	156	234	75	.....	70	7	.....	.....	75	75	667	.....	.....	147
Pontiac.....	Am.....	780	4	.....	55	45	150	35	20	.....	15	30	.....	15	20	455	335	.....	.....
Rock Island.....	Ger.....	675	8	.....	35	65	200	100	35	8	.....	.....	.....	65	40	548	127	.....	.....
..	..	336	3	96	32	30	104	20	8	15	.....	.....	.....	30	40	356	.....	.....	20
Sterling.....	Am.....	600	2	84	40	60	150	20	10	10	3	.....	.....	5	.....	384	216	.....	.....
Totals.....	21	\$12,486	100	\$1,002	\$828	\$1,231	\$4,140	\$1,685	\$305	\$413	\$145	\$144	\$9	\$632	\$744	\$11,278	\$2,885	\$335	.....
Averages	594 57	5	4.9	100 20	25 14	199 52	80 24	25 42	31 77	6 90	20 14	34	535 64	180	84

TOY MAKER.

Chicago.....	Ger.....	\$375	8	\$120	\$40	\$200	\$88	\$2	\$10	\$40	\$500	\$75
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TRACKMEN (MINE).

PLACE.	Nationality	ANNUAL EARNINGS OF—			Total earnings	Number in family.	Number of rooms occupied	ANNUAL EXPENDITURES FOR—											Total expenses	Surplus	Debt
		Husband	Wife	Children				Rent	Fuel	Meat	Groceries	Clothing	Boots and shoes	Dry goods	Books	Life insurance	Trades union	Sickness	Sundries		
Coal City	Scotch	\$352	...	...	\$552	3	4	\$60	\$30	\$60	\$150	\$18	\$12	\$14	\$1	\$12	...	...	\$7	\$352	\$170
Gardner	Eng	615	...	...	615	6	6	78	36	87	204	31	34	60	2	...	...	...	12	594	21
"	Welsh	567	...	...	621	9	6	60	36	81	210	37	20	60	4	...	...	15	18	...	3
"	Eng	661	...	...	661	2	2	36	30	...	138	50	25	50	...	...	...	5	25	362	299
Streator	"	620	...	...	620	6	5	...	21	60	300	100	...	40	18	20	...	10	22	500	10
"	"	396	...	...	396	4	3	...	6	48	200	50	40	...	10	...	...	...	6	300	16
Totals	6	\$3,441	...	...	\$3,441	31	26	\$244	\$158	\$389	\$1,232	\$202	\$171	\$254	\$38	\$12	...	\$69	\$87	\$2,900	\$549
Averages	...	573.50	...	...	582.50	5.4	6.0	39.50	26.35	67.80	205.66	48.66	34.20	50.80	6.66	...	...	11.50	14.50	184.50	96

TRAIN DESPATCHERS.

Champaign	Eng	\$1,000	\$1,000	4	7	\$120	\$87	\$110	\$300	\$75	\$25	\$75	\$10	\$100	\$178	\$1,080	...
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TRUNK MAKERS.

Chicago	Am	\$461	\$461	5	3	\$108	\$75	...	\$250	\$75	\$5	\$6	\$100	\$591	\$90
"	Ger	900	900	5	3	180	40	...	300	210	30	10	25	795	105
"	"	675	...	...	675	4	3	108	30	...	300	75	...	...	5	...	...	6	75	600	60
"	"	675	...	...	675	5	4	120	80	...	300	75	...	...	5	...	...	6	75	681	44
"	"	607	...	...	607	4	3	108	80	...	250	60	...	...	5	...	...	5	75	548	59
Totals	5	\$3,518	...	...	\$3,518	23	16	\$624	\$155	...	\$1,400	\$495	...	...	\$50	...	...	\$33	\$350	\$3,161	\$354
Averages	...	703.60	...	...	703.60	4.6	3.2	124.80	31	...	280	99	...	...	10	...	...	11.40	70	632.80	71

UPHOLSTERS.

[illegible]

WAGONMAKERS.

Danville	Am	\$675	.....	\$200	\$875	5	6	\$84	\$30	\$150	\$200	\$80	\$30	\$40	\$6	.....	.....	.....	.....	\$255	.....
Equality	.....	715	.....	.....	715	2	6	.....	40	45	48	22	15	32	8	.....	.....	.....	.....	428	.....
Galena	Ger	450	.....	.....	450	3	5	60	30	60	100	80	.....	.....	2	.....	.....	.....	.....	50	.....
"	Am	420	.....	.....	420	6	5	.....	40	60	162	96	.....	.....	4	.....	.....	.....	.....	20	.....
"	Irish	384	.....	.....	384	3	5	72	28	48	120	72	.....	.....	3	.....	.....	.....	.....	.....	.....
Galesburg	Am	552	.....	.....	552	3	6	96	25	36	125	80	25	60	7	.....	.....	.....	.....	334	.....
Jacksonville	Eng	702	.....	.....	702	4	5	.....	45	.....	210	80	.....	.....	12	.....	.....	.....	.....	28	.....
Joliet	Am	624	.....	.....	624	5	7	180	45	60	200	50	25	30	3	.....	\$3	.....	.....	285	\$2
Mattoon	Eng	432	.....	.....	432	8	8	.....	50	54	150	75	.....	30	10	.....	.....	.....	.....	.....	.....
Moline	Am	600	.....	.....	600	4	4	84	30	30	140	50	18	7	7	.....	.....	.....	.....	231	.....
"	Scan	585	.....	.....	585	3	4	.....	30	50	175	15	12	8	5	.....	.....	.....	.....	230	.....
Sterling	Irish	750	.....	.....	750	9	6	84	15	100	200	90	100	25	10	.....	.....	.....	.....	101	.....
Totals	12	\$6,889	.....	\$200	\$7,089	55	67	\$660	\$408	\$093	\$1,830	\$843	\$225	\$292	\$77	.....	\$3	\$126	\$335	\$1,659	\$2
Averages	574 03	590 75	4 58	5 58	91 29	31	63	152 50	53 58	32 14	29	6 42	10 50	27 92	452 67	166

WAITER.

Chicago...	Eng.....	\$360	\$360	5	3	\$95	\$40	\$100	\$81	\$1	\$16	\$14	\$351	\$6....
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WATCH FACTORY OPERATIVES.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt.....	
		Husband ..	Wife	Children ..				Rent	Fuel	Meat.....	Groceries ...	Clothing.....	Boots and shoes	Dry goods...	Books	Life insur- ance	Trade unions				Sickness ....	Sundries ....
Springfield	Eng.....	\$700	576	600	\$700	8	4	\$154	\$48	\$60	\$700	\$50	\$20	\$20	\$10	\$2	.....	\$30	\$50	\$746	\$46
.. ..	.. ..	576	600	.....	576	6	4	120	40	72	288	30	40	25	9	.....	.....	.....	50	674	98
.. ..	.. ..	600	.....	.....	600	2	4	210	36	50	210	90	.....	.....	10	.....	.....	.....	.....	666	66
Totals.....	3	\$1,876	.....	.....	\$1,876	16	12	\$516	\$124	\$182	\$828	\$170	\$60	\$45	\$29	\$2	.....	\$30	\$100	\$2,086	\$210
Averages .....	.....	625 33	.....	.....	625 33	5.33	4	172	41 33	60 66	276	56 66	30	22 50	9 66	.....	.....	10	33 33	695 33	70

WATCHMAKERS.

Danville.....	Am.....	\$400	.....	.....	\$400	4	2	.....	\$18	\$30	\$100	\$100	.....	\$50	\$6	.....	.....	.....	.....	\$304	\$96
.....	Ger	622	.....	.....	622	4	2	\$36	40	50	160	10	.....	40	5	.....	.....	.....	.....	401	221
Freeport.....	Am.....	765	.....	.....	765	2	4	60	75	75	100	50	.....	50	10	.....	.....	.....	.....	455	310
Springfield .....	.....	875	.....	.....	875	2	3	120	40	60	144	35	.....	25	15	.....	.....	.....	.....	457	418
Totals.....	4	\$2,662	.....	.....	\$2,662	12	11	\$216	\$173	\$215	\$504	\$195	\$68	\$165	\$36	.....	.....	\$10	\$35	\$1,617	\$1,045
Averages .....	.....	665 50	.....	.....	665 50	3	2.75	72	43 25	53 75	126	48 75	22 66	41 25	9	.....	.....	.....	17 50	404 25	261

WATCHMEN.

Chicago.....	Am.....	\$520	.....	.....	\$970	5	7	\$120	\$45	.....	\$185	\$95	.....	.....	.....	.....	.....	.....	.....	\$786	\$184
East St. Louis.....	Irish.....	840	.....	.....	840	2	3	96	24	\$60	144	50	.....	.....	.....	.....	.....	.....	.....	477	363
.....	.....	390	.....	.....	390	6	2	.....	12	120	50	150	.....	.....	.....	.....	.....	.....	.....	482	.....
Elgin.....	Ger.....	660	.....	.....	660	2	4	.....	60	.....	175	100	.....	.....	.....	.....	.....	.....	.....	480	180
Joliet.....	Irish.....	516	.....	\$75	921	8	5	.....	35	75	300	60	.....	30	25	.....	.....	.....	.....	730	191

Mattoon.....	Am.....	360	.....	.....	.....	80	.....	219	100	.....	8	.....	3	10	.....	365	.....	5
Peoria.....	Irish.....	520	.....	.....	.....	25	.....	160	90	.....	5	.....	.....	.....	50	375	.....	.....
Totals.....	7	\$3,836	\$750	\$75	\$4,661	\$231	\$255	\$1,233	\$585	\$88	\$54	\$6	\$3	\$268	\$181	\$3,695	\$1,063	\$97
Averages.....	548	665 86	4.43	4	169	83	85	22	23 75	38 29	25 86	527 86	212	48

WEAVER (CARPET).

Sterling.....	Ger.....	\$313	\$313	5	4	\$40	\$50	\$100	\$25	\$25	\$5	\$1	\$271	\$42
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WEIGHER.

Coal City.....	Eng.....	\$586	\$18	\$39	\$200	\$15	\$27	\$47	\$28	\$37	\$21	\$528	\$58
Equality.....	Am.....	378	22	65	78	35	15	12	4	24	292	86
Totals.....	2	\$964	.....	.....	\$964	8	7	\$278	\$50	\$42	\$59	\$32	.....	.....	\$61	\$21	\$820	\$144	.....
Averages.....	\$482	\$482	4	3.5	139	25	21	29 50	16	30 50	10 50	410	72

WELL DIGGER.

Peoria.....	Eng.....	\$630	\$364	\$994	5	4	\$120	\$40	\$100	\$125	\$55	\$25	\$100	\$617	\$377
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WOOD MACHINISTS.

Aurora.....	Am.....	\$842	\$842	2	7	\$50	\$50	\$108	\$25	\$15	\$25	\$10	\$313	\$529
.....	750	750	2	4	\$108	25	108	144	15	12	10	20	577	173
.....	.....	702	.....	.....	702	3	7	.....	60	85	175	40	15	.....	20	10	518	184	.....
Chicago.....	Scan.....	835	.....	.....	835	4	6	.....	80	90	260	40	20	.....	20	100	710	125	.....

Wood Machinists—Continued.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			Total earnings.....	Number in family.	Number of rooms occupied.....	ANNUAL EXPENDITURES FOR—										Total expenses....	Surplus	Debt		
		Husband ..	Wife.....	Children. . .				Rent.	Fuel.....	Meat.	Groceries....	Clothing.....	Boots and shoes	Dry goods...	Books	Life insur- ance.....	Trade unions				Sickness.....	Sundries.....
Chicago.....	Irish.....	\$600	.....	.....	\$600	3	3	\$103	\$40	\$150	\$175	\$30	\$12	\$25	\$5	.....	\$45	\$20	\$15	\$585	\$15	.....
"	Am.....	975	.....	.....	975	6	6	180	75	200	250	75	50	75	6	.....	5	.....	10	926	49	.....
"	Bohemian	600	.....	.....	600	3	3	103	40	100	175	50	10	20	6	.....	5	11	.....	525	75	.....
"	Am.....	672	.....	.....	672	3	3	108	60	18	200	50	20	8	20	.....	6	10	.....	500	172	.....
"	Ger.....	688	.....	.....	688	4	4	120	30	.....	40	50	20	.....	5	.....	6	.....	7	688	.....	.....
"	Irish.....	994	.....	.....	994	6	6	60	60	50	200	75	40	80	7	.....	10	75	.....	597	397	.....
"	"	1,010	.....	\$100	1,010	5	5	216	60	130	260	80	20	.....	10	.....	.....	35	111	922	118	.....
"	"	900	.....	.....	900	7	4	144	70	175	300	100	30	50	7	\$20	5	15	75	901	9	.....
"	Ger.....	675	.....	.....	675	2	3	108	40	120	175	50	10	15	15	10	5	.....	50	593	77	.....
"	Bohemian	675	.....	.....	675	5	5	114	50	150	180	100	30	60	10	.....	5	10	10	749	16	.....
"	Am.....	775	.....	.....	775	2	3	108	30	110	140	40	10	25	6	.....	5	11	10	495	170	.....
"	"	600	.....	.....	600	2	4	120	40	100	175	65	10	10	10	.....	5	.....	20	555	220	.....
"	Ger.....	768	.....	.....	768	3	6	156	45	.....	235	125	.....	15	5	.....	.....	.....	14	600	.....	.....
"	Irish.....	430	.....	.....	430	6	4	216	41	121	132	85	31	15	10	.....	.....	20	17	708	60	.....
"	Am.....	504	.....	180	684	4	3	120	52	25	120	25	8	5	3	13	4	25	10	410	20	.....
Peoria.....	"	.....	.....	.....	.....	5	3	108	35	.....	250	45	30	20	10	.....	.....	25	50	573	111	.....
Totals.....	20	\$14,790	.....	\$280	\$15,070	77	87	\$2,172	\$993	\$1,782	\$4,144	\$1,165	\$393	\$683	\$167	\$124	\$66	\$332	\$539	\$12,560	\$2,510	.....
Averages....	.....	739 50	.....	.....	753 50	3.85	4.35	135 02	49 65	104 82	207 20	58 25	20 79	40 18	8 35	.....	.....	16 60	26 95	627	139	.....

WOOD WORKERS.

Chicago.....	Scan.....	\$1,014	.....	.....	\$1,014	4	4	\$132	\$26	\$100	\$155	\$60	\$27	\$20	\$4	.....	\$25	\$20	.....	\$569
"	Irish.....	775	.....	.....	775	4	4	114	60	140	175	50	20	30	10	.....	5	20	\$11	665
"	Ger.....	650	.....	.....	650	8	4	120	20	65	130	135	40	105	22	.....	.....	34	.....	677
"	Irish.....	550	.....	.....	550	3	4	120	41	95	150	45	18	25	8	\$15	.....	14	9	540
"	Am.....	504	.....	.....	504	6	4	144	52	40	150	35	15	12	5	3	4	35	8	503
"	Irish.....	750	.....	.....	750	2	3	114	40	10	175	40	30	70	15	.....	.....	20	115	699
"	Ger.....	720	.....	.....	720	4	6	156	60	100	200	60	30	70	.....	.....	.....	35	.....	711

Ch cago.....	Ger.....	800	.....	.....	800	3	3	08	59	150	200	100	25	50	20	11	50	15	748	52
Moline.....	.....	960	.....	.....	960	4	3	90	30	75	150	100	20	8	2	50	25	10	500	400
Rock Falls.....	Scan	400	.....	.....	400	10	3	.....	30	50	300	125	40	8	10	.....	20	40	623	223
Sterling.....	Am.....	600	.....	.....	600	7	4	.....	50	100	200	50	40	35	5	.....	15	.....	495	105
.....	Scan	540	.....	.....	540	7	6	.....	35	75	150	45	35	30	10	.....	10	5	305	145
.....	Am.....	607	.....	.....	607	4	8	.....	50	75	150	50	40	35	5	.....	10	5	420	187
.....	Ger.....	600	.....	.....	600	8	4	.....	40	75	100	75	25	50	5	.....	15	20	440	160
.....	Am.....	450	.....	.....	450	3	6	.....	60	25	60	50	.....	.....	8	.....	15	10	228	222
.....	.....	601	.....	.....	601	3	7	.....	40	65	150	50	25	30	10	.....	5	5	380	221
.....	.....	600	.....	.....	600	9	7	.....	75	180	250	100	75	80	20	.....	20	10	810	90
Totals.....	17	\$11,121	.....	.....	\$300	89	80	\$1,118	\$768	\$1,450	\$2,851	\$1,170	\$515	\$658	\$159	\$103	\$363	\$263	\$9,463	\$2,208
Averages.....	.....	654 18	.....	.....	.....	4.71	124	22	41 65	85 29	167 71	68 82	32 19	41 25	9 94	.....	21 35	15 47	556 88	147 125

WIPERS (LOCOMOTIVE.)

Aurora.....	Ger.....	\$336	.....	.....	\$336	5	5	.....	\$50	\$55	\$130	\$30	\$20	\$20	\$5	.....	\$20	\$5	\$335	\$1
Danville.....	.....	350	.....	.....	350	2	1	.....	20	.....	160	40	10	20	.....	.....	.....	.....	250	100
East St. Louis.....	.....	360	.....	.....	360	6	3	\$84	5	40	200	25	15	25	4	.....	20	10	443	97
.....	Irish.....	300	.....	.....	300	9	2	60	4	40	200	20	15	20	.....	.....	5	10	374	\$22
Fulton.....	.....	530	.....	.....	530	2	3	.....	20	60	240	50	20	25	4	.....	10	10	439	91
Totals.....	5	\$1,876	.....	.....	\$40	24	14	\$144	\$99	\$195	\$930	\$165	\$80	\$110	\$13	.....	\$55	\$35	\$1,841	\$289
Averages.....	375 20	4.8	2.8	72	19 80	48 75	86	33	16	23	2 60	11	7	368 20	72

WIRE FENCE MAKER.

Joliet.....	Ger.....	\$351	3	2	\$60	\$35	\$60	\$155	\$10	\$15	\$15	\$2	\$25	\$25	\$402	\$51
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YARD MASTERS.

Champaign.....	Irish.....	\$780	2	3	\$30	\$156	\$110	\$5	\$32	\$86	\$419	\$361
East St. Louis.....	Am.....	1,200	3	3	\$120	17	\$96	600	140	5	12	25	1,112	712
Rock Island.....	.....	840	.....	.....	.....	4	6	.....	40	65	200	80	20	7	8	17	100	50	587	253
Totals.....	3	\$2,820	.....	.....	.....	9	12	\$120	\$87	\$161	\$956	\$330	\$85	\$32	\$18	\$61	\$107	\$161	\$2,118	\$1,326
Averages.....	.....	940	.....	.....	.....	3	4	.....	29	80 50	318 66	110	42 50	16	6	.....	35 66	53 66	706	442

YARDMEN.

PLACE.	Nationality	ANNUAL EARN- INGS OF—			ANNUAL EXPENDITURES FOR—												Total earnings	Number in family.	Number of rooms occupied.....	Debt.....	Surplus	Total expenses....
		Husband..	Wife	Children ..	Rent	Fuel	Meat.....	Groceries....	Clothing.....	Boots and shoes	Dry goods...	Books.....	Life insur- ance	Trade unions	Sickness.....	Sundries						
Chicago.....	Irish.....	\$468	.....	.....	\$132	\$45	.....	\$150	\$90	.....	.....	.....	.....	.....	\$10	\$21	\$458	10	5	.....	\$10	\$458
.....	Scan.....	468	.....	.....	120	40	.....	160	90	.....	.....	.....	.....	.....	13	40	468	7	4	.....	.....	468
Totals.....	2	\$936	.....	.....	\$252	\$85	.....	\$310	\$180	.....	.....	.....	.....	.....	\$23	\$61	\$926	17	9	.....	\$10	\$926
Averages .....	.....	468	.....	.....	126	42 50	.....	155	93	.....	.....	7 50	.....	.....	11 50	30 50	463	8.5	4.5	.....	.....	463

It is found by summing up the columns of the foregoing table that the gross earning of the whole 2,129 families for the period of one year, amount to \$1,251,846. Of this sum the heads of families earn \$1,118,310; the wives \$16,420; and the children \$117,116. An equal division of this gross amount among the whole number of families gives to each \$588 per annum, and by a similar process we obtain the sum \$525.27 as the average earnings of each head of a family, the difference indicating the measure of assistance rendered by wives and children. There was actually expended by these people, in maintaining themselves in such manner as circumstances permitted, the gross amount \$1,080,595. This sum is made up of the following items: Rents, \$136,658; Fuel, \$67,719; Meat, \$113,693; Groceries, \$385,425; Clothing, \$143,058; Boots and Shoes, \$39,924; Dry Goods, \$59,264; Books, papers, etc., \$15,311; Life Insurance, \$7,637; Trade Organizations, \$2,959; Sickness, \$42,058; Sundries, \$66,889. The aggregate expenditures, divided by the number of families, give \$507.56 as the average cost of living per family for one year, as against average earnings of the family of \$588.00, and average earnings for the heads of families of \$525.27.

While these sums respectively constitute the general mean to which all earnings and expenses may be arithmetically reduced, they are only valuable for purposes of comparisons with similar deductions made for other communities or countries, and convey but little idea of the general situation, and none whatever of the wide differences in condition depicted in the tables themselves. These general averages however are brought out here as preliminary to closer investigations, and for use in subsequent references.

A more effective grouping of the primary results obtained is presented in the following table, showing the relative number in each occupation who have been able upon their year's work to make sufficient for their living expenses, the number who have made more than their expenses, and the number who have made less.

TABLE XIII.—Showing the relative number of those who have saved and those who have not saved money upon their earnings.

OCCUPATIONS.	Total			OCCUPATIONS.	Total		
	Expenses more than earnings	Expenses equal to earnings	Expenses less than earnings		Expenses more than earnings	Expenses equal to earnings	Expenses less than earnings
Bakers.....	10	4	14	Horse shoer.....	1		1
Barbers.....	12	1	13	Hostlers.....		1	2
Baggagemen.....	4	1	5	Iron and steel workers.....	10		13
Boilermakers.....	9		9	Janitors.....	2	1	4
helper.....	1		1	Laborers.....	215	35	147
Bookbinder.....	2		2	(R. R.).....	10	5	1
Blacksmiths.....	51	3	75	(coal mine).....	14	4	1
helpers.....	5	1	7	Lard renderer.....	1		1
Brakemen.....	4		5	Lather.....	1		1
Bookkeepers.....	4	1	5	Laundrymen.....	1	1	2
Braseworkers.....	6		6	Lead miners.....	2		2
Brewers.....	4		5	Lumber handlers.....	3	2	7
Bricklayers.....	36	6	46	Machinists.....	28	2	35
Brickmakers.....	3		5	Machinists (R. R.).....	6		7
Bridge builders.....	4		5	Machine milers.....	4		4
Bridge tenders.....	3		3	Maisters.....	4	1	5
Broom makers.....	3		3	Marble workers.....	11	2	17
Burnisher.....	1		1	Master mechanics.....	1		2
Butchers.....	17	6	27	Mattress maker.....			1
Cabinet makers.....	11	2	15	Milbers.....	15		16
Cager.....	1		1	Millwrights.....	2		2
Calciminer.....	1		1	Moulders.....	34	2	49
Caller.....			1	Monument setters.....	1		1
Car builders.....	2	1	3	Mule drivers.....	3		3
Car inspectors.....	4	1	6	Nailers.....	7		7
Car painters.....	1		2	Nail plate shearer.....	1		1
Car repairers.....	6		8	Organ builders.....	2		2
Carpenters.....	74	9	111	Omnibus driver.....	1		1
Carriage makers.....	4		5	Painters.....	39	2	62
Carriage ironers.....	2		2	Paper carriers.....	1		1
Carriage painters.....	2		2	Paper hangers.....	3		6
Carriage trimmers.....	4		4	Paper makers.....	1		1
Catcher (foundry).....	1		1	Pattern makers.....	9		9
Cigar makers.....	48	11	79	Piano makers.....	1	1	2
Cigar packers.....		1	2	Picture frame makers.....	1	1	2
Clocks.....	36	5	46	Pit bosses.....	6		6
Coal miners.....	144	18	232	Pit sinkers.....	1		2
Conductors (freight).....	1		3	Pit topmen.....			2
Coopers.....	9	1	22	Plasterers.....	14	8	23
Curriers.....	4		7	Plow factory men.....	5		7
Ditchers.....	3		3	Plumbers.....	8	1	10
Draughtsmen.....	3		3	Potters.....	3		4
Electrician.....	1		1	Pressmen.....	1		2
Engineers (Loc.).....	9		12	Printers.....	18	3	28
Engineers (Sta.).....	27		30	Prison guard.....	1		1
Express agent.....	1		1	Puddlers.....	3		4
Express drivers.....	5	1	7	Puddler's helper.....	1		1
Farm hands.....	1	1	2	Quarrymen.....	4		5
Firemen (Loc.).....	14		16	Rag sorter (paper mill).....			1
Firemen (Sta.).....	6	1	9	Refiner (gas).....	1		1
Fishermen.....			1	River pilot.....	1		1
Flagmen.....	2		4	Rollers.....	6		5
Flour packers.....	2		3	Rolling mill hands.....	4		5
Foremen.....	13		15	Roughers.....	2		3
Furnacemen.....	4		4	Salt maker.....	1		1
Gardener.....			1	Saw filer.....	1		1
Gilder.....	1		1	Sawyers.....	1		3
Glass blowers.....	3		3	Seamen.....	1		2
Grinders.....	3		4	Section bosses.....			5
Harness makers.....	20	5	31	Section men.....	5	5	15
Heater (bar mill).....	4		4	Sheetiron workers.....	1		1
Heater (foundry).....	1		1				
Helpers in shop.....	1		3				
Hod carriers.....	1		3				
Horseshoe makers.....			1				

Table XIII.—Continued.

OCCUPATIONS.	Expenses less than earnings.	Expenses equal to earnings.	Expenses more than earnings.	Total	OCCUPATIONS.	Expenses less than earnings.	Expenses equal to earnings.	Expenses more than earnings.	Total
Shoemakers.....	1	3	8	32	Trunk makers.....	5			5
Silver plater.....		1		1	Upholsterers.....	6	1	2	9
Shooter (coal).....	1			1	Wagonmakers.....	10	2		12
Soda water maker.....	1			1	Waiter.....	1			1
Spinner.....		1		1	Watch factory operatives.....			3	3
Stair builder.....	1			1	Watch makers.....	4			4
Station agents.....	4			4	Watchmen.....	5		2	7
Stone masons.....	11		8	19	Weaver (carpet).....	1			1
Stone cutters.....	19	3	6	28	Weighter (mine).....	2			2
Stove mounters.....	2			2	Well digger.....	1			1
Street car conductors.....	4	2	4	10	Wood machinists.....	18	2		20
Street car drivers.....	8	1	2	11	Wood workers.....	15	2		17
Switchmen.....	2		1	3	Wipers (Loco).....	4	1		5
Tailors.....	12		4	16	Wire fence maker.....			1	1
Telegraphists.....	2		1	3	Yardmasters.....	3			3
Teamsters.....	38	8	20	66	Yardmen.....	11	1		12
Tile makers.....	2		1	3	Totals.....	1441	186	502	2129
Tinners.....	16	2	3	21					
Toy maker.....			1	1					
Trackmen (mine).....	6			6					
Train despatcher.....	1			1					

SUMMARY.

OCCUPATIONS.	Expenses less than earnings.	Expenses equal to earnings.	Expenses more than earnings.	Total
Building trades.....	190	22	66	278
Shop trades.....	317	50	90	457
Metal workers.....	200	9	35	244
Railroad employes.....	105	17	27	149
Coal mine employes.....	192	24	74	290
Out-door occupations.....	277	49	174	500
In-door occupations.....	147	15	34	196
Foremen, etc.....	13		2	15

Here is presented a suggestive view of the financial status of the workingman in Illinois, both as to specific occupations and groups of occupations. By the footings it is seen that out of 2,129 families, 502, or 24 per cent., find themselves in debt at the end of the year, 186, or 9 per cent., contrive to make both ends meet, while 1,441, or 67 per cent. of the whole, save more or less money. In a

similar analysis made for workingmen in Massachusetts, the money savers constitute 55 per cent., those who come out even 35 per cent., and those in debt 10 per cent. By an examination of the balances extended in the general table (XII) it will be seen what small amounts in some instances constitute the difference between gain and loss. In our tabulation we count those who do not show a difference of more than \$5 as being even for the year. Assuming any larger sum, as for instance \$10 or \$25, would of course increase this class at the expense of the other two, and render the results in the two States more nearly alike.

We may note in regard to some of the larger classes, that 15 per cent. of the blacksmiths do not make a living; and that the same is true of 11 per cent. of the bricklayers, 25 per cent. of the carpenters, 25 per cent. of the cigar makers, 30 per cent. of the coal miners, 37 per cent. of the laborers, 25 per cent. of the shoemakers, and 30 per cent. of the teamsters.

In considering the relation of the several general classes we find that the largest percentage of prosperity exists among the metal workers, and the smallest in outdoor occupations. Reducing our classification to the simpler one denoting degrees of skill, we have the following:

CLASSES.	Number who pay expenses.	Number who do not pay expenses.	Whole number.	Per cent.	Per cent.
Skilled workers.....	950	225	1,175	80	20
Railroad employes.....	122	27	149	81	19
Coal mine employes.....	216	74	290	74	26
Unskilled workers.....	326	174	500	65	35

The contrasts between the condition of skilled and unskilled workmen will become more apparent upon a subsequent consideration of their respective earnings. In the foregoing, the class of foremen, etc., has not been considered, though upon examination two of this class are found, having relatively small pay and large families, whose outlay exceeds their income.

We further indicate the relative prosperity of workingmen in different places, as distinguished from occupations, in the following classification.

This table shows, numerically, the proportion of those in each town who thrive, or fail to do so, as indicated by the relation their expenses sustain to their earnings. As an index of the relative advantages offered the wage classes in different localities, this showing could not be regarded as conclusive. Compared with the whole number of workmen in any town, those represented here are necessarily few; and no exact results as to the relative advantages of towns could be reached except by a registration of all the workingmen in each, and a comparison of the general conditions thus disclosed. This presentation illustrates simply the degree of welfare existing among those whom the Bureau has been able to reach, and while the effort has been to secure a just representation of all classes, it may readily be understood that this was not always practically feasible. It is not, therefore, singular that some wide differences should appear, without apparent reason, between specific localities in the following tables. Those among the principal towns which exhibit the largest percentage of prosperous workingmen are Jacksonville, Mattoon, East St. Louis, Pontiac, Freeport, Aurora and Sterling; those showing the largest number of unfortunates are Chicago, Galesburg, Rock Island, Streator and Moline.

TABLE XIV.—*Showing the relative number of money-savers in the different cities and towns.*

PLACES.	No. of Families Showing—			Total		PLACES.	No. of Families Showing—			Total.....
	Expenses less than earnings..	Expenses equal to earnings	Expenses more than earnings..				Expenses less than earnings..	Expenses equal to earnings	Expenses more than earnings..	
Alma	4	.....	1	5		Danville.....	100	5	26	131
Alton	27	4	17	48		Du Quoin.....	15	1	1	17
Aurora	69	8	16	93		East St. Louis	79	4	10	93
Bartonville	6	.....	7	13		Elgin	7	8	1	16
Belleville.....	44	4	15	63		Equality.....	25	1	6	32
Bloomington	51	4	17	72		Freeport	16	2	1	19
Carlinville	11	4	.....	15		Fulton.....	11	.....	1	12
Caseyville.....	1	.....	3	4		Galena.....	31	10	9	50
Centralia.....	37	.....	12	49		Galesburg.....	29	8	19	56
Champaign	70	8	20	98		Gardner.....	15	2	10	27
Chicago	180	66	108	354		Gartside.....	4	.....	1	5
Coal City.....	8	4	3	15						
Collinsville	20	6	3	29						

Table XIV.—Continued.

PLACES.	No. of Families Showing—			Total.....		PLACES.	No. of Families Showing—			Total.....
	Expenses less than earnings..	Expenses equal to earnings	Expenses more than earnings..				Expenses less than earnings..	Expenses equal to earnings	Expenses more than earnings..	
Jacksonville.....	58	.....	3	61		Quincy	9	5	.....	14
Joliet.....	32	1	16	49		Rentchler.....	1	.....	1	2
Lincoln.....	3	.....	1	4		Rock Falls.....	4	.....	.....	4
Mattoon.....	29	3	4	36		Rock Island.....	61	1	36	98
Moline.....	78	4	56	138		Springfield.....	25	1	7	33
Mt. Pulaski	1	.....	1	2		Sterling	48	.....	3	51
Pekin.....	17	7	5	29		Streator	30	6	14	50
Peoria.....	127	5	32	164		Summerfield.....	.....	.....	1	1
Peoria county	13	1	8	22		Urbana.....	14	1	2	17
Pontiac.....	31	2	5	38		Totals	1,441	186	502	2,129

Two summary tables are next presented, affording a comprehensive review of the results shown in detail by Table XII. They consist of averages relating to the size of families and of tenements, and to the amount of family income and outlay, classified both with reference to occupations and locations.

Table XV is an epitome of the character and economic experience of families in different trades; the data being given in averages for each trade, and the figures being placed in such juxtaposition as to bring out contrasts, and facilitate comparisons. The average earnings both of the head of the family and of the whole family are given in connection with the family expenses, in order to illustrate not only the rewards which flow from the trade itself, but also the dependence of many workingmen upon the labor of wives and children for a portion of the family support. The amounts carried out in the columns for surplus and deficit are merely the differences between the respective averages. The details of gains and losses of individual families are given in Table XII.

TABLE XV—Showing average size of families and of tenements, and average earnings and expenditures in each occupation.

OCCUPATIONS.	No. of families visited.	Average size of families.	Average No. of rooms occupied.	AVERAGE ANNUAL EARNINGS OF THE		Average expenses of family.	Average surplus.	Average debt.
				Head of family.	Whole family.			
Bakers.	14	4.79	3.43	\$481.79	\$536.64	\$481.28	\$55.36	
Barbers.	18	3.61	4.16	566.22	582.88	540.83	42.05	
Baggage men.	5	4.2	3.8	540.00	596.00	492.80	103.20	
Boiler makers.	25	7.75	5.11	706.00	852.22	631.65	220.57	
Boiler helpers.	12	3	3	400.00	400.00	268.00	132.00	
Bookbinders.	25	5	5	843.00	893.00	818.00	75.00	
Bookkeepers.	53	8.52	5.21	852.00	957.00	647.60	309.40	
Blacksmiths.	75	4.66	4.62	622.35	670.12	539.97	136.15	
Blacksmiths' helpers.	74	4.54	4.14	470.86	470.86	425.57	45.29	\$3.40
Brakemen.	54	4.42	4.2	508.60	508.60	512.00		
Brush workers.	64	16.36	6.6	647.33	647.33	491.66	155.67	
Brewers.	56	3.2	3.2	640.80	640.80	510.60	130.20	
Bricklayers.	46	4.26	4.54	637.60	699.17	600.80	98.37	
Brickmakers.	54	2.46	4.6	416.80	464.00	441.80	22.20	
Bridge builders.	54	2.48	4.8	737.40	817.40	563.60	253.80	
Bridge tenders.	25	5.5	5	540.00	780.00	500.00	280.00	
Broom makers.	32	3.33	3.33	601.00	601.00	352.33	249.33	
Burnisher.	15	8	8	450.00	2,111.00	1,829.00	282.00	
Butchers.	27	5.07	3.92	514.70	558.30	469.92	88.38	
Cabinet makers.	15	3.87	5.53	466.13	585.73	463.46	62.27	
Cager (coal mine).	16	5	5	755.00	1,115.00	868.00	247.00	
Calcinimer.	12	3	3	468.00	468.00	440.00	28.00	
Callers (R. R.).	12	6	6	463.00	468.00	499.00		\$1.00
Car builders.	55	6.54	5.4	496.80	506.80	479.20	27.60	
Car inspectors.	64	16.36	6.6	615.16	640.16	555.83	84.33	
Car painters.	24	5.35	5	505.00	505.00	503.50	1.50	
Car repairers.	84	6.24	6.2	562.50	630.30	484.25	146.25	
Carpenters.	111	4.43	4.75	552.44	625.20	532.73	92.56	
Carriage makers.	55	4	4	557.40	705.80	623.40	82.40	
Carriage ironers.	23	5.4	5.4	711.00	711.00	620.00	91.00	
Carriage painters.	73	3.57	3.57	624.85	730.23	532.57	203.71	
Carriage trimmers.	43	5.45	5	630.00	630.00	457.50	172.50	
Catcher (foundry).	14	3	3	1,110.00	1,110.00	625.00	485.00	
Cigar makers.	79	3.88	3.67	492.42	577.36	527.70	49.66	
Cigar packers.	26	6.5	6.5	510.00	635.00	710.00		75.00
Clerks.	46	3.98	4.78	640.83	687.13	586.82	100.31	
Coal miners.	232	4.93	4.1	345.43	471.13	435.87	35.26	
Conductors (frt.).	26	5.4	5.4	966.00	966.00	805.00	101.00	
Coopers.	22	5.25	3.95	432.18	484.27	474.05	10.22	
Curriers.	74	7.13	7.29	555.00	736.43	667.43	69.00	
Ditchers.	33	2.66	2.66	359.33	359.33	292.33	67.00	
Draughtsman.	32	3.46	4.66	869.66	869.66	703.00	167.66	
Electrician.	15	4	4	800.00	800.00	760.00	40.00	
Engineers (Loco.).	12	4.42	6	1,020.17	1,061.42	835.12	226.30	
Engineers (Sta.).	30	4.63	4.3	631.16	676.63	584.86	97.77	
Express agent.	16	4	4	720.00	720.00	667.00	53.00	
Express drivers.	76	4.57	4.57	619.43	750.57	704.00	46.57	
Farm hands.	29	4.5	4.5	318.00	582.00	581.00	1.00	
Firemen (Loco.).	16	4.06	4.81	670.00	703.12	569.06	143.06	
Firemen (Sta.).	95	5.38	5.88	455.44	501.22	478.44	22.78	
Fisherman.	18	3	3	210.00	340.00	578.00		38.00
Flagmen.	42	7.54	5	357.00	369.50	376.00		6.50
Flour packers.	32	6.3	6.3	528.66	528.66	452.66	76.00	
Foremen.	15	5.33	6.13	969.93	1,167.40	933.07	234.33	
Furnacemen.	44	7.54	7.25	606.00	752.25	541.75	210.50	
Gardener.	11	3	3	380.00	452.00	470.00		18.00
Gilder.	12	4	4	720.00	1,104.00	920.00	184.00	
Glass blowers.	33	6.33	3.33	773.00	773.00	591.66	181.34	
Grinders.	43	7.54	7.5	610.00	647.50	521.00	126.50	
Harness makers.	31	3.87	4.23	547.52	645.58	548.26	57.32	
Heaters (Bar mill).	43	7.37	7.5	1,468.50	1,524.00	814.50	709.50	
Heater (foundry).	19	7	7	1,200.00	1,200.00	1,034.00	166.00	
Helpers in shop.	34	3.31	4.66	444.66	444.66	454.66		10.00
Hod carriers.	33	6.3	6.3	346.66	553.33	461.33	152.00	

Table XV.—Continued.

OCCUPATIONS.	No. of families visited.	Average size of families.	Average No. of rooms occupied.	AVERAGE ANNUAL EARNINGS OF THE		Average ex- penses of family.	Average sur- plus.	Average de- ficit.
				Head of family.	Whole family.			
Horseshoe maker.....	15.	3.		\$580 00	\$580 00	\$692 00		\$112 00
Horseshoer.....	13.	4.		900 00	900 00	655 00	\$245 00	
Hostler.....	34.33	3.33		476 00	476 00	476 33		2 33
Iron and steel workers.....	135.38	5.92		700 23	756 00	565 00	191 00	
Janitors.....	44.78	3.33		542 50	680 60	433 25	253 25	
Laborers.....	397.45	3.48		344 59	414 02	388 38	25 64	
Laborers R. R.....	165.31	2.02		365 87	462 56	445 87	16 69	
Laborers (coal mine).....	194.42	3.63		446 00	493 79	439 37	54 36	
Lard render.....	16.	3.		546 00	546 00	530 00	16 00	
Lather.....	18.	7.		494 00	494 00	367 00	127 00	
Laundrymen.....	23.5	2.5		600 00	600 00	464 50	135 50	
Lead miners.....	24.	4.		305 00	445 00	424 00	21 00	
Lumber handlers.....	75.	3.48		454 71	494 71	480 14	14 57	
Machinists.....	35.45	4.14		661 37	671 60	563 23	108 37	
Machinists R. R.....	75.29	4.86		698 00	821 86	616 86	205 00	
Machine miners.....	44.25	3.75		691 00	691 00	485 50	205 50	
Maltsters.....	53.8	3.		604 40	604 40	413 40	191 00	
Marble workers.....	174.29	3.65		569 94	618 00	552 24	65 76	
Master mechanics.....	27.	7.		1,396 00	2,076 00	1,113 50	962 50	
Mattress maker.....	15.	4.		440 00	440 00	446 00		6 00
Millers.....	163.94	4.		872 50	909 25	656 62	252 63	
Millwrights.....	23.5	4.		600 00	600 00	466 60	133 40	
Moulders.....	494.31	4.41		712 04	744 19	622 48	121 71	
Monument setter.....	13.	3.		600 00	600 00	447 00	153 00	
Mule driver (mine).....	33.66	4.33		493 00	493 00	459 00	34 00	
Nailers.....	74.43	5.71		1,410 57	1,456 00	786 71	669 29	
Nail plate shearer.....	15.	4.		493 00	493 00	450 00	43 00	
Organ builders.....	24.9	5.		600 00	882 00	717 50	164 50	
Omnibus drivers.....	15.	4.		480 00	480 00	436 00	44 00	
Painters.....	62.4	10.42		503 10	532 53	485 61	46 92	
Paper carriers.....	22.	4.		544 50	607 00	506 00	101 00	
Paper hangers.....	66.5	4.5		601 50	677 50	628 50	49 00	
Paper maker.....	13.	4.		472 00	473 00	374 00	98 00	
Pattern makers.....	94.11	4.80		812 00	946 22	614 89	331 33	
Piano makers.....	26.5	6.		712 00	712 00	608 50	103 50	
Picture frame makers.....	24.5	4.		765 00	765 00	626 00	139 00	
Pit bosses.....	65.16	3.4		775 00	775 00	595 33	179 67	
Pit sinkers.....	23.5	4.5		346 00	381 00	370 50	10 50	
Pit-top men.....	21.5	3.5		327 50	490 00	562 00		72 00
Plasterers.....	234.73	1.80		625 69	653 04	595 62	57 42	
Plow factory men.....	75.45	5.43		650 00	721 43	544 43	177 00	
Plumbers.....	103.	4.11		581 14	595 43	442 79	152 64	
Potters.....	15.	1.		401 25	447 25	434 50	13 75	
Pressmen.....	24.5	7.		708 00	708 00	636 00	112 00	
Printers.....	265.81	1.1		654 54	703 58	647 04	56 54	
Prison guard.....	12.	1.		540 00	540 00	333 00	207 00	
Puddlers.....	44.5	3.75		786 00	1,051 25	782 50	268 75	
Puddlers' helper.....	14.	5.		504 00	759 00	603 00	156 00	
Quarrymen.....	50.6	4.		400 60	525 60	502 80	22 80	
Rag sorter.....	15.	3.		240 00	240 00	209 00		59 00
Refiner (gas).....	12.	1.		730 00	730 00	466 00	264 00	
River pilot.....	11.	4.		840 00	840 00	370 00	470 00	
Rollers.....	55.4	1.4		1,604 00	1,692 20	589 60	1,102 60	
Rolling mill hands.....	60.4	5.2		455 00	689 50	633 80	55 70	
Roughers.....	23.	3.5		1,110 00	1,110 00	671 50	438 50	
Salt maker.....	13.	7.		780 00	780 00	385 00	395 00	
Saw filer.....	15.	1.		580 00	580 00	439 00	141 00	
Sawyers.....	87.	3.80		529 62	629 62	632 13		2 50
Sailors.....	12.	4.		380 00	380 00	352 00	28 00	
Section bosses.....	56.2	4.4		612 00	743 20	605 80	137 40	
Section men.....	134.65	2.32		321 31	321 31	322 09		1 38

Table XV.—Continued.

OCCUPATIONS.	No. of families visited	Average size of families	Average No. of rooms occupied	AVERAGE ANNUAL EARNINGS OF THE		Average expense of family	Average surplus	Average debt
				Head of family.	Whole family.			
Sheet iron workers.....	14	5		\$600 00	\$600 00	\$545 00	\$55 00	.....
Shoemakers.....	82	41	66	467 40	504 08	458 41	45 62	.....
Silver plater.....	15	2		320 00	320 00	320 00		.....
Shooter (coal).....	15	4		720 00	720 00	582 00	138 00	.....
Soda water maker.....	24	6		780 00	780 00	640 00	140 00	.....
Spinner.....	19	5		270 00	702 00	702 00		.....
Stair builder.....	12	4		604 00	604 00	468 00	136 00	.....
Station agents.....	43	4		870 00	870 00	576 00	294 00	.....
Stone masons.....	19	5	76	407 21	489 53	478 47	10 06	.....
Stone cutters.....	28	6	14	627 07	627 00	559 54	68 42	.....
Stove mounters.....	22	3	5	420 50	420 50	399 50	21 00	.....
Street car conductors.....	10	7	11	684 40	728 40	718 90	10 10	.....
Street car drivers.....	11	4	18	698 45	743 45	689 09	54 36	.....
Switchmen.....	34	3	66	622 66	622 66	522 66	100 00	.....
Tailors.....	16	5	5	542 94	697 87	619 62	78 25	.....
Telegraphers.....	33	6	60	755 00	755 00	674 66	80 34	.....
Teamsters.....	66	4	3	459 97	484 59	436 21	49 38	.....
Tile makers.....	34	6	33	400 00	493 33	448 00	45 33	.....
Tinners.....	21	4	9	594 57	629 90	535 64	94 26	.....
Toy maker.....	18	1		375 00	425 00	500 00		\$75 00
Trackmen (mine).....	15	4	6	573 50	592 50	484 58	98 17	.....
Train despatcher.....	14	7		1,080 00	1,080 00	1,080 00		.....
Trunk makers.....	54	6	2	703 60	703 60	632 80	70 80	.....
Upholsterers.....	44	6	4	478 89	565 00	493 67	71 33	.....
Wagon makers.....	14	5	58	574 09	590 75	452 67	138 08	.....
Walter.....	15	4		360 00	360 00	354 00	6 00	.....
Watch factory operatives.....	33	3	3	625 33	625 33	695 33		70 00
Watch makers.....	43	2	75	665 50	665 50	494 25	261 25	.....
Watchmen.....	74	4	4	548 00	665 86	527 86	138 00	.....
Weaver (carpet).....	15	4		313 00	313 00	271 00	42 00	.....
Welghers.....	24	3	5	482 00	482 00	410 00	72 00	.....
Well digger.....	17	4		630 00	994 00	617 00	377 00	.....
Wood machinists.....	20	4	35	730 50	753 50	627 00	126 50	.....
Wood workers.....	17	3	71	654 18	671 82	556 89	114 94	.....
Wipers.....	54	8	2	375 20	421 00	368 20	53 40	.....
Wire fence maker.....	13	2		351 00	351 00	402 00		51 00
Yard masters.....	34	4		940 00	1,148 00	706 00	442 00	.....
Yard men.....	28	4	5	498 00	468 00	463 00	5 00	.....
Averages for 163 classes.....				\$402 85	\$560 14	\$566 62	\$123 52	.....
Averages for 2,129 families.....		4	62	527 27	568 00	507 56	80 44	.....

Referring to the earnings of the heads of families, we find the lowest to be \$210, and the highest \$1,608. There are three earnings less than \$300 per annum, but they are single families in each case, no average for a class being less than \$300. Those who show average earnings of more than \$300 and less than \$400, are representatives of 19 different occupations, among which are day laborers, coal miners, railroad section men, hod carriers and others. Those earning more than \$400 and less than \$500, are engaged in 32 occupations, including bakers, brick makers, cabinet makers, cigar makers, coopers, shoe makers, stone masons, teamsters, upholsterers, and others. Those earning more than \$500 and less than

\$600, represent 29 occupations, among which are found barbers, brakemen, butchers, carpenters, carriage makers, curriers, harness-makers, painters, plumbers, tailors, tanners, wagon makers and others. Those earning more than \$600 and less than \$700, represent 37 occupations, including blacksmiths, bricklayers, clerks, stationary engineers, locomotive firemen, machinists, machine miners, plasterers, printers, stone cutters, street car conductors and drivers and others. Those who earn more than \$700 and less than \$800, are found in 22 occupations, including among others boiler-makers, glass blowers, iron and steel workers, moulders, pressmen, puddlers, telegraphists, and trunk makers. Those who earn more than \$800 and less than \$900, represent 8 occupations, including bookbinders, bookkeepers, draughtsmen, millers, pattern makers and others. There are 13 vocations in which the average earnings are from \$900 to \$1,600 per annum. Among these are foundry men, such as heaters, earning \$1,200, and catchers, \$1,110, foremen, etc., \$969.93, nailers \$1,410, master mechanics \$1,386, rolling mill men, such as heaters, \$1,458.50, rollers \$1,608, roughers \$1,110, locomotive engineers \$1,020.70, train despatchers \$1,080, and yardmasters \$1,148,—the foregoing being averages for those classes.

These figures refer to earnings of heads of families, which in almost every class are augmented more or less by those of wives or children, and this is even true of many families whose earnings are large.

In this consideration of class or occupation averages, it will be observed that in almost every instance the class shows a net surplus of earnings over expenses. The exceptions are only 17 in number, and of these 8 are cases of single families, and with one exception they all show incomes below the average.

The surplus column in this table indicates rather a higher degree of prosperity than that brought out in tables XIII and XIV, yet the deductions from the latter must be regarded as the truer index of relative thrift, as they are founded upon the experience of individual families, rather than upon the average experience of groups of families. For the same reason the final averages of this table, as to earnings and expenses, though they are higher than the original averages given for the State, can only be accepted as averages for the sum of the different trade averages, not as the true family averages.

The second summary table introduces the condensed results derived from a detailed classification, much too large for publication

here, in which the returns from each place are so compiled as to illustrate local conditions as distinguished from the deductions by occupations. The points brought out in this analysis are the average earnings and expenses of all the working people visited, in each town, regardless of the nature of their employment, and in connection therewith the average number in each family contributing to its support, the size of families and of dwellings, the number in each town who own their homes, and the degree of welfare indicated by average balances.

TABLE XVI--Showing the average results obtained for each town, as distinguished from trade averages.

LOCALITIES.	Population. 1880.....	No. of fam- ilies visited.	Average No. in each earn- ing wages..	Average earn- ings of fam- ilies.....	Average No. in each family.	Average No. of rooms occ'p'd	No. who rent.	No. who own their homes	Average expen- ditures of families ...	Surplus,	Deficit.
Alma	165	5	2.	\$412	4.4	3.6	5	....	\$383	\$24	....
Alton	2,978	48	1.6	492	5.8	3.75	34	14	461	31	....
Aurora	11,875	93	1.2	596	3.9	4.86	52	41	539	57	....
Bartonville	450	13	1.54	439	6.4	3.3	13	....	424	15	....
Belleville	10,682	63	1.17	681	4.8	3.38	51	12	521	160	....
Bloomington	17,184	72	1.8	464	4.1	3.66	20	52	384	80	....
Carlinville	3,118	15	1.4	473	5.4	3.	10	5	368	105	....
Caseyville	900	4	1.5	480	7.5	3.75	4	....	451	29	....
Centralia	3,623	49	1.38	595	3.9	4.26	25	24	529	66	....
Champaign	5,106	98	1.35	597	4.3	4.8	47	51	497	100	....
Chicago	503,305	354	1.34	639	4.8	3.92	329	25	612	27	....
Coal City	568	15	1.53	525	5.2	3.73	9	6	481	44	....
Collinsville	2,839	29	1.17	454	4.7	3.51	21	8	377	77	....
Danville	7,735	131	1.27	504	4.5	3.17	76	55	326	178	....
DuQuoin	2,808	17	1.17	494	4.	3.79	13	4	366	128	....
East St. Louis	10,000	93	1.29	867	4.3	3.69	73	20	626	241	....
Elgin	8,789	16	1.	623	3.9	5.12	7	9	514	109	....
Equality	500	32	1.18	439	4.4	2.56	27	5	346	93	....
Freeport	8,516	19	1.58	618	4.9	5.42	9	10	502	116	....
Fulton	1,733	12	1.33	586	4.4	4.66	4	8	491	95	....
Galena	6,454	50	1.56	486	5.	3.16	16	34	407	79	....
Galesburg	11,446	56	1.3	570	4.1	4.57	34	22	527	43	....
Gardner	786	27	1.29	449	5.	4.07	21	6	451	.....	\$2
Gartside	103	5	1.	492	4.2	3.2	5	....	415	77	....
Jacksonville	10,927	61	1.14	659	3.7	4.08	42	19	516	143	....
Joliet	11,659	49	1.55	671	5.5	5.08	23	26	578	93	....
Lincoln	5,639	4	1.	553	4.5	2.75	4	....	547	6	....
Mattoon	5,742	36	1.36	696	4.4	4.05	18	18	525	171	....
Moline	7,805	138	1.23	528	3.8	3.75	90	48	476	52	....
Mt. Pulaski	1,127	2	1.	575	4.5	4.5	2	....	714	.....	139
Pekin	5,998	29	1.2	404	4.	3.48	21	8	386	18	....
Peoria	29,319	164	1.3	545	4.5	3.53	121	43	443	102	....
Peoria county	26,100	22	1.41	449	5.	3.72	18	4	412	37	....
Pontiac	2,243	38	1.31	726	4.4	5.5	12	26	531	195	....
Quincy	27,275	14	1.21	660	5.	4.35	13	1	529	31	....
Renickler	148	2	1.5	350	3.5	2.	2	....	550	.....	200
Rock Falls	894	4	1.	555	5.7	4.5	2	2	477	79	....
Rock Island	11,661	98	1.11	530	4.7	3.89	64	34	481	49	....

Table XVI—Continued.

LOCALITIES.	Population. 1880.	No. of fam- ilies visited.	Average No. in each earn- ing wages.	Average earn- ings of fam- ilies.....	Average No. in each family.	Average No. of rooms occ'd	No. who rent	No. who own their homes	Average expen- itures of families....	Surplus	Deficit.
Springfield.....	19,746	33	1.36	\$760	5.1	4.06	16	17	\$658	\$102	...
Sterling.....	5,469	51	1.43	584	5.2	5.68	24	27	474	110	...
Streator.....	5,153	50	1.24	567	4.1	3.76	17	33	574	...	\$7
Summerfield.....	751	1	2.	225	9.	3.	1	...	264	...	39
Urbana.....	2,943	17	1.59	797	5.1	4.52	4	13	602	195	...
Totals.....	807,887	2,129	2.687	\$1,239,765	9.834	...	1,399	730	\$1,077,322	\$162,443	..
Averages.....	...	...	1.26	382	4.62	4.07	...	...	506	76	...

It will be observed that there are no such extremes shown in the average earnings for towns, as in those for occupations. There are in each community some who receive the higher and some the lower rates of wages, the averages taken obscuring the extremes of both. The results, however, indicate the relative proportions of each in different places, and the relative value of those earnings as affected by the size of the town may be inferred by reference to the column showing the average cost of living in each.

A casual survey of the table shows 31 localities in which the average earnings of families are less than \$600 per annum, and 12 in which they are more. Omitting, however, places from which less than 12 families are reported—as not having a significant representation—and transferring three places in which the earnings are practically \$600 even, we have 19 places in which the average earnings are less than \$600, and 15 in which they are \$600 and over. Among the latter are Chicago, Quincy, Springfield, East St. Louis, Belleville, Jacksonville, Joliet, Freeport, Elgin, and others; while in the former class are found Bloomington, Carlinville, Danville, Du-Quoin, Peoria, Galena, Galesburg, Moline and Rock Island. The returns from the first five of these are, however, very largely from the unskilled classes.

The highest average earnings are reported from East St. Louis, \$867. This average is swollen by returns from operatives in the iron mills, some of whom, as will be seen by reference to Table XII, receive very high wages.

The largest average savings are also at East St. Louis, \$241; and in general, though not uniformly, the largest savings appear with the largest earnings. The smallest earnings, \$225 and \$350,

are reported from two small mining villages in St. Clair county, and do not vary much from average earnings of coal miners in that part of the State, as shown in other tables.

The average sizes of families, and of homes in the different towns, are shown in appropriate columns between those for earnings and expenses, to which they are intimately related. An interesting feature also of this table is the separation of those who own their homes, from those who pay rent. In round numbers, there are 1,399 out of 2,129 families who live in rented tenements, and 730, or 34 + per cent. of the whole, who occupy houses of their own. This percentage, while true of the whole number, will assume considerably larger proportions upon a close analysis of the table. It is noticeable first that the percentage of freeholders in Chicago is particularly small, being only seven per cent. of the 354 families reported; also that all the mining communities, except Streator, show small percentages of house owners. Eliminating these and we find that in 19 of the principal towns, represented by 1,155 families, 48 + per cent. of the workingmen have been able to provide themselves with houses of their own.

A subsequent table in relation to rents, etc., also shows the proportion of families in each occupation who own their homes, which may be referred to for further facts of interest on this subject.

From the foregoing we reach the following general conclusions:

1. That 24+ per cent. of the workingmen of Illinois, fail to make a living.
2. That the earnings in 80 occupations average more than \$600 per annum, and in 83 the average is less than \$500.
3. That in 19 localities the average earnings for all trades is less than \$600 per annum, and in 15 the average is \$600 or more.
4. That 34+ per cent. of our workmen own the houses in which they live.

These tables complete the general survey of the returns, and prepare us for the more specific consideration of the two sides of the workingman's accounts. The succeeding chapters are consequently devoted, first, to a more particular analysis of the sources of the family income; and second, to a fuller presentation of the character and amount of the various items of expenditure.

CHAPTER III.

SOURCES OF THE FAMILY INCOME.

Among workingmen of all classes, there are found those who require the assistance of wives and children in order to maintain themselves in the unequal struggle against want. This is in a measure true in all communities. It was declared in the House of Commons in 1873, that 184,000 mothers in England were daily away from their homes at work in the mills. Statistics on the same subject have also been compiled in the State of Massachusetts, showing that 64+ per cent. of the workingmen of that State rely upon the assistance of wives or children for the family support.

Our own returns permit us to show to what extent such assistance is required by the workingmen of Illinois; and for this purpose we enter upon an analysis of the earnings of families, and a comparison of the earnings of the head of the family and of the whole family with the expenditures of the family. This enables us to determine what proportion of the heads of families are dependent upon the labor of their women and children for the necessities of life; what proportion avail themselves of such assistance for the purpose of getting on in the world more rapidly; and how many are supporting their families by their individual earnings, and permitting their wives to remain at home, and their children to remain at school. While the results in this respect will be found gratifying as compared with conditions elsewhere, it is not the less deplorable that the necessity should ever arise for resorting to this alternative.

The employment of wives otherwise than in their domestic duties, and the placing at labor of children of school age, must be subversive of the best interests of the family, as well as of doubtful expediency as a measure of economy. The first obligation to the child is manifestly to give it such physical and mental development

as best to prepare it for the duties and responsibilities of maturity; and the most effective assistance the wife can render the family is in the care of her children, and the practice of those small domestic economies which contribute more in the end to the permanent prosperity of the family, than any mere earnings she might obtain through the neglect of them. Yet when we consider the meager earnings of many heads of families, and realize that it devolves upon them not only to maintain and educate their families, but equally to make provision for those declining years when the ability to labor shall fail, it is not strange that, when the opportunity offers, they call upon those who are naturally their dependents and make them contributors to as well as consumers of the family resources. Happily the number in our State upon whom such necessity is imposed is not large, as will appear upon an examination of subsequent pages.

We give our returns, first, three distinct groupings: by places, by nationalities, and by occupations, and show under each the whole number of families, and what proportion of them are supported by the father alone, and what proportion are assisted by wives and children. An accompanying column also gives the percentage of the latter to the whole.

TABLE XVII.—*Showing the relative Number of Families Supported by the Husband alone, and those receiving assistance from Wife and Child Labor.*

PLACES. NATIONALITIES AND TRADES.	Whole number of families.	Number supported by the husband alone.	Number assisted by wives and children	Percentage of assisted to the whole.
PLACES.				
Less than 1,000 population	130	92	38	29+
From 1,000 to 5,000	179	131	48	26+
From 5,000 to 10,000	670	502	168	25+
From 10,000 to 20,000	585	471	114	19+
Over 20,000	211	161	50	23+
Chicago	354	261	93	26+
	2,129	1,618	511	24+
NATIONALITIES.				
Americans	978	784	194	19+
Germans	349	275	74	21+
Irish	348	253	95	27+
English	152	103	49	32+
Scandinavians	107	82	25	23+
Scotch	65	42	23	35+
Welsh	25	18	7	28
Canadians	22	21	1	05
French	21	13	8	38

Table XVII.—Continued.

PLACES, NATIONALITIES AND TRADES	Whole number of families.	Number supp'rt- ed by the hus- band alone.	Number assisted by wives and children	Percent- age of assisted to the whole.
Danes.....	13	11	2	15
Italians.....	11	8	3	27
Bohemians.....	5	.....	5	100
Poles.....	4	2	2	50
Swiss.....	5	5	.....	.....
Portuguese.....	1	1	.....	.....
Colored.....	23	.....	23	100
	2,129	1,618	511	24+
OCCUPATIONS.				
Building trades.....	278	208	70	25+
Shop trades.....	457	359	98	21+
Metal workers.....	244	199	45	18+
Railroad employes.....	149	110	39	26+
Coal mine employes.....	290	199	91	31+
Out-door occupations.....	500	355	145	29
In-door occupations.....	196	179	17	86
Foremen, etc.....	15	9	6	40
	2,129	1,618	511	24+

We find here that there are only 24+ per cent. of the families given who receive aid in the shape of earnings from wives and children, and that 75+ per cent. of the heads of families are able, by their individual earnings, to supply the needs of those dependent upon them. In Massachusetts, whose extensive mills afford unusual opportunities for the employment of women and children, the percentage of families thus assisted is 64+, affording a very wide contrast with our 24+ per cent. . The disparity in this respect will appear even greater when we enquire into the ages of the so-called children who are included in our tabulation. It will then appear that a large proportion of them are over 16 years of age, consequently beyond the average school age, and really representing adult, rather than child labor.

An examination of this table also developes some minor points of interest. It appears, for instance, that the smallest percentage of assisted families is found in cities having a population of from 10,000 to 20,000, while the largest percentages are found in Chicago and in towns of the smallest population.

In respect to the nationality of families, it is observed that Americans, as a class, are more successful in providing for their own by their individual efforts than any of the races with corresponding numerical representation, and that the Germans are next to them in this respect. On the other hand, the natives of Great Britain receive most assistance from their families.

In tracing the influence of occupation upon families in this regard, we find that the metal workers and those pursuing in-door occupations require least assistance from their wives and children, while coal miners and out-door workers require the most. The apparently large proportion of foremen, etc., who receive such assistance is doubtless largely accidental in this instance, and would not be maintained if a larger number were shown in the class.

As a primary analysis of the sources of income, we arrange the following tabulation by occupations, showing the number of families in each supported by the father alone, with his average earnings; the number assisted by the labor of wives, and their earnings; the number assisted by children, and the amount of their earnings; and in connection with these columns, the average earnings and expenses of the whole family. This shows for each occupation the number of wives and children at work, and the various amounts they contribute to the revenues of the family.

TABLE XVIII.—*Showing the number of Wives and Children at work in each occupation, and their respective contributions to the family income.*

OCCUPATIONS.	No. of families...	Av. number in families...	No. families supported by father alone...	Av. earnings of father...	No. families assisted by wife.	Av. earnings of wife...	No. families assisted by children...	Av. earnings of children by families...	Av. earnings of whole family...	Av. expenses of family...
Bakers.....	14.4.79	10	10	\$481.79	.....	.....	4	\$192.00	\$536.64	\$481.28
Barbers.....	18.3.61	16	16	566.22	1	\$100.00	1	200.00	382.88	570.83
Baggagemen.....	5.4.1	4	4	540.00	1	280.00	.....	.....	596.00	492.80
Boilermakers.....	95.77	6	6	706.00	.....	.....	3	438.66	852.22	631.65
Boilermakers helper.	12.	1	1	400.00	.....	.....	.....	.....	400.00	268.00
Bookbinders.....	25.	1	1	813.00	.....	.....	1	100.00	893.00	818.00
Blacksmiths.....	75.4.66	58	58	622.35	6	200.00	11	257.54	676.12	539.97
Blacksmiths helpers.	7.4.45	7	7	470.86	.....	.....	.....	.....	470.86	425.57
Brakemen.....	5.4.4	5	5	508.60	.....	.....	.....	.....	508.60	512.00
Bookkeepers.....	5.3.8	4	4	852.00	.....	.....	1	525.00	957.00	617.60
Brass workers.....	6.4.16	6	6	647.33	.....	.....	.....	.....	647.33	491.66
Brewers.....	5.6.	5	5	640.80	.....	.....	.....	.....	640.80	510.60
Bricklayers.....	46.4.26	36	36	637.60	3	82.66	7	369.14	699.17	600.80
Brickmakers.....	5.4.2	2	2	416.80	1	45.00	2	95.50	464.00	441.80
Bridge builders.....	5.4.2	4	4	737.40	.....	.....	1	400.00	817.40	513.60
Bridge tenders.....	25.5	1	1	540.00	.....	.....	1	480.00	780.00	500.00
Broom makers.....	3.2.33	3	3	601.66	.....	.....	.....	.....	601.66	352.83
Burnisher.....	15.	1	1	450.00	1	1,295.00	1	365.00	2,111.00	1,829.00
Butchers.....	27.5.07	21	21	514.70	1	75.00	5	220.40	558.30	469.92
Cabinet makers.....	15.3.87	9	9	466.13	1	250.00	5	158.80	535.73	463.46
Cager.....	1.6.	1	1	755.00	.....	.....	1	360.00	1,115.00	868.00
Calclmner.....	1.2.	1	1	468.00	.....	.....	.....	.....	468.00	410.00
Caller (R. R.).....	1.2.	1	1	468.00	.....	.....	.....	.....	468.00	400.00
Car builders.....	5.5.6	4	4	496.80	.....	.....	1	40.00	507.80	479.20
Car inspectors.....	6.4.16	5	5	615.16	1	150.00	.....	.....	640.16	555.83
Car painters.....	2.4.5	2	2	505.00	.....	.....	.....	.....	505.00	503.50

Table XVIII.—Continued.

OCCUPATIONS.	No. of families.	Av. number in families.	No. families supported by father alone.	Av. earnings of father.	No. families as related by wife.	Av. earnings of wife.	No. families as related by children.	Av. earnings of children by families.	Av. earnings of whole family.	Av. expenses of family.
Car repairers	84.62	7	7	\$563.50			1	\$546.00	\$630.50	\$484.26
Carpenters	1114.43	73	73	552.44	4	\$118.75	31	224.00	625.29	532.73
Carriage makers	55.	2	2	557.40	1	12.00	2	965.00	705.80	623.40
Carriage ironers	24.	2	2	711.00					711.00	620.00
Carriage painters	29.	5	5	624.85	1	36.00	1	744.00	736.28	533.57
Carriage trimmers	43.5	4	4	630.00					630.00	457.50
Catcher (foundry)	14.	1	1	110.00					1,110.00	625.00
Cigar makers	793.89	63	63	492.42	5	450.60	11	405.27	577.36	527.70
Cigar packers	26.	2	2	510.00			2	575.00	635.00	710.00
Clerks	463.98	40	40	640.89	2	70.00	4	498.00	687.13	586.82
Coal miners	232.5	150	150	385.43	6	104.66	67	288.66	471.13	435.87
Conductors (freight)	25.5	2	2	966.00					966.00	865.00
Coopers	225.23	16	16	432.18	2	58.50	4	257.50	484.27	474.05
Carriers	74.71	4	4	555.00			3	423.33	736.43	667.43
Ditchers	33.	3	3	359.33					359.33	292.33
Draughtsmen	32.33	3	3	860.66					860.66	703.00
Electrician	15.	1	1	800.00					800.00	760.00
Engineers (Loc.)	124.42	10	10	1,020.17			2	247.50	1,061.42	836.92
Engineers (Sta.)	304.63	26	26	631.16			4	318.50	678.63	580.86
Express agent	16.	1	1	720.00					720.00	667.00
Express drivers	76.	6	6	619.43			2	459.00	750.57	704.00
Farm hands	29.	2	2	318.00			2	264.00	582.00	581.00
Firemen (Loc.)	164.06	14	14	670.00	1	50.00	1	490.00	703.12	560.06
Fire men (Sta.)	95.55	7	7	455.44			2	206.00	601.22	478.44
Fishermen	18.	1	1	210.00			1	340.00	540.00	518.00
Flagmen	42.75	3	3	357.00			1	50.00	369.50	376.00
Flour packers	42.04	3	3	528.66					528.66	452.64
Foremen	155.33	9	9	969.93	1	250.00	5	542.40	1,167.40	933.07
Furnacemen	44.75	2	2	606.00			2	292.50	752.25	541.75
Gardeners	111.	1	1	380.00			1	72.00	452.00	479.00
Gilder	112.	1	1	720.00			1	384.00	1,104.00	920.00
Glass blowers	33.86	3	3	773.00					773.00	591.66
Grinders	43.75	3	3	610.00			1	100.00	647.50	521.00
Harness makers	313.87	25	25	547.52	1	8.00	1	350.00	605.58	548.26
Heaters (bar mill)	43.75	3	3	1,468.50			1	222.00	1,524.00	814.50
Heater (foundry)	19.	1	1	200.00					1,200.00	1,031.00
Helpers (in shops)	34.11	3	3	444.66					444.66	454.66
Hod carriers	33.67	1	1	346.66	1	120.00	2	250.00	553.33	410.33
Horseshoe maker	15.	1	1	580.00					580.00	692.00
Horseshoer	13.	1	1	900.00					900.00	655.00
Hostlers	34.43	3	3	476.00					476.00	478.37
Iron & steel workers	135.38	11	11	700.23			2	363.50	756.00	563.00
Janitors	44.75	3	3	542.50			1	576.00	686.50	433.25
Laborers	3974.57	253	253	314.59	43	103.00	101	229.00	414.02	368.98
Laborers (R. R.)	165.31	13	13	365.87			3	515.66	462.56	445.87
Laborers (coal mine)	194.42	16	16	446.00	1	25.00	2	441.00	493.73	439.37
Lard renderer	16.	1	1	546.00					546.00	530.00
Lather	13.	1	1	494.00					494.00	357.00
Laundrymen	23.5	2	2	600.00					600.00	461.50
Lead miners	24.	1	1	395.00			1	100.00	445.00	424.00
Lumber handlers	75.	5	5	454.71			2	140.00	494.71	480.14
Machinists	354.57	29	29	661.37	3	85.00	4	247.00	671.60	583.23
Machinists (R. R.)	75.29	3	3	698.00			4	266.75	821.86	616.86
Machine miners	44.25	4	4	691.00					691.00	485.50
Malsters	53.8	5	5	604.40					604.40	413.40
Marble workers	174.29	14	14	569.94			3	272.66	618.06	552.24
Master mechanics	27.	1	1	396.00			1	1,380.00	2,076.00	1,113.50
Mattress maker	15.	1	1	440.00					440.00	446.00
Millers	163.94	13	13	872.50	1	240.00	2	175.00	909.25	656.52
Millwrights	23.5	2	2	600.00					600.00	466.50
Moulders	494.31	41	41	712.04	2	11.00	6	261.00	744.19	622.45
Monument setter	13.	1	1	600.00					600.00	447.00
Mule drivers (mines)	33.66	3	3	493.00					493.00	459.00

Table XVIII.—Continued.

OCCUPATIONS.	No. of families.	No. families supported by father alone.	Av. earnings of father.	No. families assisted by wife.	Av. earnings of wife.	No. families assisted by children.	Av. earnings of children by families.	Av. earnings of whole family.	Av. expenses of family.
Nailers.	74.43	51	1,410 57			1	\$318 00	\$1,456 00	\$786 71
Nail plate shearer.	15.	1	493 00					493 00	450 00
Organ builders.	24.5	1	600 00			1	564 00	882 00	717 50
Omnibus driver.	15.	1	480 00					480 00	436 00
Painters.	624.19	51	503 10	4	\$101 00	7	202 90	532 53	485 69
Paper carriers.	32	1	544 50	1	125 00			607 00	596 01
Paper hangers.	66.5	4	601 50	1	50 00	2	203 00	677 50	628 50
Paper maker.	13	1	472 00					472 00	374 00
Patent makers.	94.11	7	812 00			2	604 00	946 22	614 80
Plaster makers.	26.5	2	712 00					712 00	698 50
Picture frame makers.	24.5	2	765 00					765 00	626 00
Pit lickers (mines).	65.16	6	775 00					775 00	595 33
Pit lickers.	23.5	1	346 00			1	70 00	381 00	370 50
Pit lickers.	23.5	1	327 50			1	325 00	490 00	562 00
Plasterers.	234.73	18	625 69	1	50 00	5	115 80	653 01	595 52
Plow-factory men.	75.43	6	650 00			1	300 00	721 43	544 43
Plumbers.	103.	9	581 14			1	200 00	593 43	442 79
Pottery.	45.	3	401 25			1	184 00	447 25	433 50
Pressmen.	24.5	2	768 00					768 00	656 00
Printers.	263.81	21	654 50	1	50 00	4	306 50	703 58	647 04
Prison guard.	12	1	540 00					540 00	523 00
Puddlers.	44.5	2	786 00	1	640 00	1	421 00	1,051 25	782 50
Puddlers' helpers.	14.	1	504 00			1	255 00	759 00	603 00
Quarrymen.	56.6	2	400 60	1	75 00	3	183 33	525 60	592 80
Rag sorter.	15	1	240 00					240 00	299 00
Refiner (gas).	12	1	730 00					730 00	466 00
River pilot.	13	1	840 00					840 00	370 00
Rollers (iron mills).	5.4	4	1,608 00			1	421 00	1,692 20	599 60
Rolling mill hands.	55.4	2	455 00			3	391 33	689 60	633 80
Roughers.	23	2	1,110 00					1,110 00	671 50
Salt maker.	17	1	780 00					780 00	385 00
Saw flour.	13	1	580 00					580 00	430 00
Sawyers.	87	7	529 62			1	800 00	629 62	632 12
Sailors.	22	2	380 00					380 00	352 00
Section bosses.	37.2	3	612 00			2	328 00	743 20	605 80
Section men.	164.65	13	321 31					321 31	322 69
Sheet iron worker.	14	1	600 00					600 00	545 00
Shoemakers.	32.41	25	467 40	1	300 00	5	278 66	604 03	458 48
Silver plater.	13	1	320 00					320 00	320 00
Shooter (coal).	14	1	720 00					720 00	582 00
Sodawater maker.	14	1	780 00					780 00	640 00
Spinner.	13	1	270 00			1	432 00	702 00	702 00
Stair builder.	12	1	604 00					604 00	468 00
Station agents.	43	4	870 00					870 00	576 00
Stone masons.	194.54	16	467 21	1	40 00	2	155 00	488 33	478 47
Stone cutters.	263.81	27	627 07	1	25 00			627 07	559 54
Stove mounters.	2.3	2	420 50					420 50	309 50
Street car conductors.	106.7	9	698 40			1	300 00	728 40	718 30
Street car drivers.	11.5	9	638 45	1	55 00	1	1,200 00	743 45	680 00
Switchmen.	34.43	3	622 66					622 66	522 66
Tailors.	16.7	9	542 94	3	331 66	5	296 80	697 37	619 62
Telegraphists.	3	3	755 00					755 00	674 66
Teamsters.	60.1	5	459 97			9	180 44	484 59	435 21
Tilemakers.	34.66	2	460 00			1	100 00	493 31	448 00
Tinners.	2.3	16	591 57			5	268 30	629 90	535 64
Toymaker.	18	1	375 00			1	50 00	425 00	500 00
Trackmen (mine).	1.3	5	573 50			1	54 00	582 59	484 33
Train despatcher.	14	1	1,080 00					1,080 00	1,080 00
Trunkmakers.	54.6	5	703 60					703 60	632 80
Upholsterers.	94.66	27	478 80			2	387 50	565 00	493 67
Wagonmakers.	124.58	11	574 00			1	200 00	590 75	452 67
Walter.	15	1	360 00					360 00	354 00
Watchfactory op.	35.33	3	625 33					925 33	696 33

Table XVIII.—Continued.

OCCUPATIONS.	No. of families.	No families supported by father alone.	Av. earnings of father.	No. of families assisted by wife.	Av. earnings of wife.	No families assisted by children.	Av. earnings of children by families.	Av. earnings of family.	Av. expenses of family.
Watchmakers.....	43.	4	\$965 50					\$665 50	\$464 26
Watchmen.....	74.43	5	548 00	2	\$375 00		\$75 00	625 00	527 86
Weaver (carpet).....	15.	1	313 00					313 00	281 00
Weighers.....	24.	2	482 00					482 00	410 00
Well-digger.....	15.	1	630 00				394 00	994 00	617 00
Woodmachinists.....	26.3 85	18	739 50			2	140 00	753 50	627 00
Woodworkers.....	175.24	16	654 19			1	300 00	671 82	556 38
Wiper (Loc).....	54 8	3	375 20	2	96 00	1	40 00	421 60	368 20
Wirefence maker.....	13.	1	351 00					351 00	402 00
Yardmasters.....	3.3	2	940 00			1	624 00	1,148 00	706 00
Yardmen.....	28 5	2	468 00					468 00	463 00
Totals.....	2129	1,597		111		421			

From this table we learn that out of 2,129 families there were 111 assisted by the labor of wives and 421 by the labor of children. There are 21 of these families assisted both by the wife and one or more children, leaving 511 families in all who receive this kind of pecuniary aid, and 1,618 who are supported by the father alone. Upon an examination of the amounts earned and expended by these 511 families, it is found that 139 of them barely subsist, or fail altogether of paying their expenses, upon their total earnings; and that 372 families earn, by their combined efforts, somewhat more than they spend, and thus accumulate a sinking fund against sickness and old age. Another count of the individual cases develops the fact that in 111 of the families receiving assistance from the wages of wives or children, the income of the father alone is equal to the whole expenditure of the family, so that in this number of families all the earnings of the women and children constitute a surplus to the credit of future emergencies. Deducting these 111 families, who can not be regarded as strictly dependent upon this kind of assistance for actual support, from our whole number of families so assisted, we reduce our percentage of families really dependent upon wife and child labor from 24+ to 18+ per cent. In other words, while 24+ per cent. of workingmen make more or less use of the labor of those naturally dependent upon them, only 18+ per cent. are compelled to rely upon such assistance for daily bread, and really 61+ per cent. of the heads of families of workingmen in Illinois maintain their families by their individual efforts. This emphasizes the contrast with conditions developed by the chief of the

Massachusetts Bureau, who reports in 1875 "that in a majority of cases workingmen in this commonwealth do not support their families by their individual earnings alone;" and in his tables shows that 64+ per cent. are in that condition of dependence upon their families in which we find 18+ per cent. of the workingmen in this State.

Selecting 26 of the principal occupations, represented by 1,528 families, we may deduce some further facts of interest in relation to the character and amount of the assistance rendered, in a more concise form, as follows:

TABLE XIX.—*Showing the proportion of the family income derived from the labor of wives and children.*

OCCUPATIONS.	Whole No. families	Number supported by father alone.....	Number assisted by wives and children.....	Average earnings of father alone..	Average earnings of other members of family.....	Per cent. of the whole.....	Total earnings of family.....	Total expenses of family.....
Blacksmiths	75	58	17	\$622	\$54	.08	\$676	\$540
Bricklayers.....	46	36	10	638	61	.09	699	601
Butchers	27	21	6	515	43	.08	558	470
Cabinet makers.....	15	9	6	466	70	.13	536	463
Carpenters.....	111	73	38	552	73	.12	625	532
Cigar makers.....	79	63	16	492	85	.15	577	528
Clerks.....	46	40	6	641	46	.07	687	587
Coal miners.....	232	159	73	385	86	.18	471	435
Coopers.....	22	16	6	432	52	.11	484	474
Harness makers.....	31	25	6	547	58	.08	605	548
Laborers	397	253	144	344	70	.17	414	388
Machinists	35	29	6	661	10	.015	671	563
Marble workers.....	17	14	3	570	48	.08	618	552
Millers.....	16	13	3	872	37	.04	909	656
Moulders.....	49	41	8	712	32	.043	744	622
Painters.....	62	51	11	503	29	.054	532	486
Plasterers.....	23	18	5	626	27	.04	653	595
Printers.....	26	21	5	654	49	.07	703	647
Shoemakers.....	32	25	7	467	37	.07	504	458
Stone masons.....	19	16	3	467	21	.04	488	478
Stone cutters.....	28	27	1	627	1	.....	628	560
Tailors.....	16	9	7	543	155	.22	698	620
Teamsters.....	66	57	9	460	25	.05	485	435
Tinners.....	21	16	5	595	35	.055	630	586
Wood machinists.....	20	18	2	739	14	.02	753	627
Wood workers.....	17	16	1	654	18	.026	672	557
Totals	1,528	1,124	404	\$14,784	\$1,236	.....	\$16,020	\$13,958
Averages.....	.....	.....	.....	\$568 61	\$47 54	.08	\$616 15	\$536 85

This brings out the extent of the money contribution of wives and children to the family fund, computed by averages for occupations; and also indicates those occupations in which such assistance is most imperative. It is found upon summing up the results here shown that only 8 per cent. of the combined earnings of these families is really derived from the labor of their dependent members. This percentage, however, varies widely in the different

occupations. The increment to the earnings of cigar makers from this source is 15 per cent., to that of coal miners it is 18 per cent., to that of laborers it is 17 per cent., while the assistance received by tailors from their families is 22 per cent. of the family income,—this large proportion, doubtless, being due to the nature of the occupation and the facilities it affords for work for women.

It should be expected that the greater percentages would appear in the occupations affording the smaller earnings to the head of the family, and this in the main is true. We not only find the proportions largest in the classes named, but also that in 10 employments showing average earnings for the head of the family of \$460, the contribution of other members is 12+ per cent., and in 11 employments affording an average income of \$677, the earnings of wives and children average only 4+ per cent. of it.

The foregoing percentages, it should be observed, relate to all families; not alone to those actually assisted. The ratio of the earnings of wives and children to those of the husband, in assisted families alone, is of course greater, as will appear in subsequent pages. The deduction here is that the labor of wives and children supply 8 per cent. of the total earnings of the 1,528 families.

The extremes of condition are moreover quite as great among families designated as "assisted" as among others. Wives and children are found at work in the families of the most prosperous, as well as in those oppressed by poverty. Some exceptional cases which do not appear in these necessarily condensed tables, but which can be traced in the general table (XII) may be grouped here in tabular form to show the thrift of some who receive pecuniary aid from their families:

OCCUPATION.	Earnings of the father alone.	Earnings of other members of the family.	Total Earnings.	Annual Savings.
Blacksmith.....	\$600	\$500	\$1,100	\$538
".....	1,000	600	1,600	673
".....	728	735	1,463	602
".....	780	500	1,280	635
Bookkeeper.....	900	525	1,425	495
Bricklayer.....	500	920	1,420	235
".....	672	364	1,036	464
Carpenter.....	522	960	1,482	752
Cigar maker.....	480	1,350	1,830	539
Coal miner.....	600	950	1,550	408
".....	750	500	1,250	801
Cooper.....	600	660	1,260	510
Harness maker.....	702	600	1,302	633
Heater.....	1,322	222	1,544	633
Iron and steel worker.....	1,420	300	1,720	1,012
Laborer.....	300	700	1,000	580
Master mechanic.....	1,800	1,380	3,180	2,063

Table—Continued.

OCCUPATION.	Earnings of the father alone.	Earnings of other members of the family	Total Earnings.	Annual Savings.
Pattern maker.....	\$811	\$728	\$1,539	\$579
.....	648	480	1,128	488
Janitor.....	700	576	1,276	598
Nailer.....	1,080	318	1,398	441
Puddler.....	1,000	421	1,421	519
Roller.....	1,000	421	1,421	487
Shoemaker.....	624	416	1,040	537
Totals.....	\$19,539	\$15,136	\$34,665	\$15,272
Averages	\$814 17	\$630 66	\$1,444 83	\$636 33

Here are 24 families, of miscellaneous occupations, with an average income to each family of \$1,444.83. These incomes range from \$1,036 to \$3,180; the amounts contributed by wives and children range from \$222 to \$1,380 per annum, with an average of \$630.66, and the net savings per family range from \$285 to \$2,063, with an average for the group of \$636.33.

On the other hand, the returns afford us instances of the other extreme, showing exceptional poverty and debt on the part of some families, in spite of the labor of all the available members of them. It is found, also, that some families become involved in debt who have incomes larger than the average. In some cases there are exceptional expenses incurred which account for this, but in the greater number of such cases the reported destitution and indebtedness can only be explained as the result of improvidence. We find among the returns the following extreme cases, affording a view of the reverse of the picture presented in the foregoing group:

OCCUPATION.	Earnings of the father alone.	Earnings of other members of the family.	Total earnings.	Indebted- ness of the family at the end of the year.
Barber	\$420	\$200	\$620	\$85
Blacksmith.....	380	48	428	72
.....	480	50	530	143
Bricklayer	510	18	558	*731
Brick maker	288	80	368	35
Carpenter	350	75	425	116
.....	550	150	700	100
Carriage maker.....	264	12	276	164
Cigar maker	450	500	950	136
.....	360	300	660	288
.. ..	270	288	558	139
Coal miner	312	497	809	+164
.. ..	360	200	560	124
.. ..	336	100	436	22
.. ..	400	60	460	97
.. ..	340	162	502	139

Table—Continued.

OCCUPATION.	Earnings of the father alone.	Earnings of other members of the family.	Total earnings.	Indebted- ness of the family at the end of the year.
Cooper	\$340	\$120	\$460	\$223
Laborer	250	52	302	29
.. ..	180	25	205	56
.. ..	288	300	588	110
.. ..	312	25	337	146
Teamster	275	200	475	15
.. ..	360	126	486	43
Tinner	520	122	642	167
Totals.....	\$8,625	\$3,710	\$12,335	\$3,344
Averages	\$359 37	\$154 58	\$513 95	\$139 33

* This family expended \$493 for sickness.

† Family consists of 10 members.

These 24 families show earnings ranging from \$205 to \$950, with an average of \$513.95; yet they failed to meet their expenses and became involved in debt to the average amount of \$139.33 to each family, notwithstanding the assistance rendered by wives and children.

By observation of these two groups of extreme cases, we not only recognize the great variety of condition and character among the families embraced in our category of the "assisted," but may also note the wide range of conditions which our returns in general cover, and from what broad diversity our averages are derived.

The point is also made sufficiently clear that while in the majority of cases wife and child labor is not resorted to except under urgent necessity, there are some very prosperous families whose members combine to augment the family revenue and promote their worldly welfare, not so much from necessity as from choice, and to whom the rendering of such assistance can not be regarded as a hardship.

Taking up the consideration of the conditions under which wives are found at work, we compile the following table of the 111 families in which they render such service, and give a complete record of each case, showing the size of the family, the occupation, location, nationality and earnings of the father, the earnings of the wife, and the relation those earnings sustain to the family support:

TABLE XX.—*Wives at work, and their Earnings.*

OCCUPATION AND LOCATION OF FAMILY.	Nationality..	No. in family	Earnings of husband...	Earnings of wife.....	Earnings of children...	Total earnings.....	Cost of living.....	Surplus.....	Deficit.....
<i>Barber—</i> Centralia.....	Colored...	3	\$384 00	\$100 00	.....	\$484 00	\$435 00	\$49 00	....
<i>Baggageman—</i> East St. Louis.....	American.	3	720 00	280 00	.....	1000 00	718 00	282 00	....
<i>Blacksmiths—</i> Bloomington.....	American.	2	600 00	50 00	.....	650 00	386 00	264 00	....
Jacksonville.....	Scotch....	4	728 00	500 00	\$235 00	1,463 00	861 00	602 00	....
".....	Colored...	2	312 00	75 00	.....	387 00	236 00	151 00	....
".....	English...	4	780 00	500 00	.....	1,280 00	645 00	635 00	....
Moline.....	American.	4	480 00	50 00	.....	530 00	673 00	.....	\$143
Urbana.....	"	5	440 00	25 00	.....	465 00	460 00	5 00	....
Averages.....	.....	3.50	\$556 66	\$200 00	.....	\$795 83	\$543 33	.....	....
<i>Bricklayers—</i> Champaign.....	American.	6	576 00	100 00	.....	676 00	670 00	6 00	....
Urbana.....	"	5	540 00	18 00	.....	558 00	1289 00	.....	731
Averages.....	.....	4.33	\$588 00	\$82 66	.....	\$670 60	\$738 33	.....	....
<i>Brick-maker—</i> Pekin.....	American.	3	262 00	45 00	.....	307 00	235 00	72 00	....
<i>Burnisher—</i> Aurora.....	American.	5	450 00	*1296 00	365 00	2,111 00	*1829 00	282 00	....
<i>Butcher—</i> Carlinsville.....	American.	8	100 00	75 00	25 00	200 00	245 00	.....	45
<i>Cabinet-maker—</i> Chicago.....	Scand'v'n.	4	375 00	250 00	.....	625 00	625 00	.....	....
<i>Car inspector—</i> East St. Louis.....	American.	4	600 00	150 00	.....	750 00	623 00	127 00	....
<i>Carpenters—</i> Galena.....	American.	4	315 00	200 00	.....	515 00	550 00	.....	35
".....	"	3	368 00	150 00	.....	518 00	350 00	168 00	....
Galesburg.....	"	2	648 00	100 00	.....	748 00	768 00	.....	20
Moline.....	"	5	240 00	25 00	200 00	465 00	577 00	.....	112
Averages.....	.....	3.5	\$392 75	\$118 75	.....	\$561 50	\$561 25	.....	....
<i>Carriage-maker—</i> Champaign.....	American.	4	261 00	12 00	.....	276 00	440 00	.....	164
<i>Carriage-painter—</i> Chicago.....	German..	2	614 00	36 00	.....	650 00	600 00	50 00	....
<i>Cigar-makers—</i> Chicago.....	German..	2	360 00	480 00	.....	840 00	840 00	.....	....
".....	American.	2	720 00	416 00	.....	1,136 00	854 00	282 00	....
".....	"	2	260 00	252 00	.....	512 00	381 00	131 00	....
".....	German..	8	240 00	745 00	200 00	1,185 00	1,185 00	.....	....
".....	Bohemian	2	360 00	360 00	.....	720 00	718 00	2 00	....
Averages.....	.....	3.2	\$388 00	\$450 60	.....	\$878 60	\$795 60	.....	....
<i>Clerks—</i> East St. Louis.....	German..	2	480 00	100 00	.....	580 00	383 00	197 00	....
Sterling.....	American.	4	360 00	40 00	.....	400 00	376 00	24 00	....
Averages.....	.....	3	\$420 00	\$70 00	.....	\$490 00	\$379 50	.....	....

† Sickness, \$493. * This income and the increased cost of living arises from keeping boarders.

Table XX.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	Nationality.	No. in family	Earnings of husband	Earnings of wife	Earnings of children	Total earnings	Cost of living	Surplus	Deficit
Coal miners—									
Centralia	Colored	3	\$360 00	\$150 00		\$510 00	\$505 00	\$5 00	
Coal City	Italian	3	395 00	50 00		445 00	444 00	1 00	
		5	324 00	156 00		480 00	421 00	62 00	
Danville	German	4	400 00	50 00	\$50 00	500 00	400 00	100 00	
Streator	Scotch	7	400 00	60 00		460 00	557 00		\$97
	Irish	7	340 00	162 00		502 00	641 00		139
Averages		4.83	\$370 33	\$104 66		\$483 33	\$491 66		
Coopers—									
Alton	American	5	321 00	67 00		388 00	434 00		46
Sterling		4	435 00	50 00		485 00	444 00	41 00	
Averages		4.5	\$378 00	\$58 50		\$436 50	\$439 00		
Fireman (Locomotive)—									
Bloomington	American	6	550 00	50 00		600 00	567 00	33 00	
Foreman—									
Champaign	American	3	1,000 00	250 00		1,250 00	734 00	516 00	
Harness-maker—									
Rock Island	American	4	468 00	50 00		518 00	450 00	68 00	
Hod-carrier—									
Chicago	Pole	3	315 00	120 00	300 00	735 00	325 00	410 00	
Laborers—									
Alton	Canadian	5	250 00	52 00		302 00	331 00		29
	Colored	7	228 00	50 00	50 00	328 00	328 00		
Aurora	American	3	156 00	150 00		306 00	311 00		5
		4	396 00	50 00		446 00	453 00		10
	Scand'n	2	180 00	100 00		280 00	283 00		3
Bloomington	American	2	350 00	100 00		450 00	392 00	58 00	
Centralia	Irish	3	360 00	100 00		460 00	444 00	16 00	
	Colored	3	315 00	144 00	175 00	634 00	476 00	158 00	
		2	210 00	125 00		335 00	311 00	24 00	
		4	210 00	100 00	30 00	340 00	335 00	5 00	
		3	375 00	144 00	96 00	615 00	424 00	191 00	
		2	300 00	144 00		444 00	303 00	141 00	
Champaign	French	5	890 00	125 00		1,015 00	309 00	706 00	
	American	6	270 00	25 00		295 00	273 00	22 00	
	Colored	12	180 00	25 00		205 00	261 00		56
Chicago	Italian	7	380 00	120 00		500 00	454 00	46 00	4
	Colored	9	315 00	152 00	85 00	552 00	552 00		
	American	3	360 00	50 00		410 00	410 00		
	German	5	300 00	150 00		450 00	479 00		29
	French	6	375 00	100 00		475 00	445 00	30 00	
	German	5	312 00	150 00		462 00	434 00	28 00	
Danville	Scotch	2	80 00	200 00		280 00	250 00	30 00	
	American	3	185 00	155 00		340 00	299 00	41 00	9
		8	187 00	150 00		337 00	384 00		51
		2	225 00	100 00		325 00	208 00	117 00	
East St. Louis	Irish	4	540 00	180 00	50 00	770 00	741 00	29 00	
	American	9	300 00	156 00	84 00	540 00	515 00	25 00	
Equality		4	225 00	45 00		270 00	334 00		68
		5	162 00	45 00		207 00	194 00	13 00	
Freeport	Irish	6	462 00	50 00		512 00	482 00	30 00	
		3	324 00	50 00		374 00	323 00	51 00	
Galena	American	7	465 00	250 00		715 00	500 00	215 00	
Gardner	English	6	225 00	25 00	112 00	362 00	362 00		
Fulton	Irish	7	270 00	50 00	90 00	410 00	450 00		20
Galesburg	Colored	4	150 00	125 00		275 00	280 00		5
Joliet		5	378 00	200 00	8 00	586 00	537 00	49 00	
Molino	Scand'n	5	300 00	35 00		335 00	455 00		120
	Colored	2	240 00	10 00		250 00	127 00	123 00	
		4	180 00	50 00		230 00	214 00	16 00	
		2	320 00	50 00		370 00	311 00	59 00	
Pontiac	American	2	380 00	160 00		540 00	264 00	276 00	
Rock Island	Irish	5	225 00	50 00		275 00	300 00		91
Springfield		8	288 00	96 00	60 00	444 00	528 00		144
Sterling	German	6	270 00	75 00		345 00	408 00	7 00	
Averages		4.34	\$281 90	\$101 43	\$19 09	\$405 43	\$377 50		

Table XX.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	Nationality..	No. in family	Earnings of husband....	Earnings of wife.....	Earnings of children...	Total earnings.....	Cost of living.....	Surplus.....	Deficit.....
Machinists—									
Danville.....	American...	4	\$400 00	\$50 00	.....	\$450 00	\$260 00	190 00	....
Springfield.....	German...	7	678 00	120 00	.....	798 00	598 00	200 00	....
Averages.....	.....	5.5	\$539 00	\$85 00	.....	\$624 00	\$429 00	.....	....
Miller—									
East St. Louis	American...	3	960 00	240 00	.....	1,200 00	787 00	413 00	....
Moulders—									
Chicago	American...	4	630 00	10 00	.....	640 00	793 00	.....	\$153
.....	.....	4	811 00	10 00	.....	821 00	829 00	.....	8
Averages.....	.....	4	\$720 50	\$10 00	.....	\$730 50	\$811 00	.....	....
Painters—									
Aurora.....	American...	3	525 00	75 00	.....	600 00	542 00	58 00	....
Chicago	English...	3	900 00	80 00	.....	980 00	1,066 00	.....	\$86
Galena.....	American...	3	273 00	200 00	.....	473 00	400 00	73 00	....
Moline.....	.....	5	520 00	50 00	.....	570 00	457 00	113 00	....
Averages.....	.....	3.5	\$554 50	\$101 25	.....	\$655 75	\$616 25	.....	....
Paper carrier—									
Chicago	American...	2	364 00	125 00	.....	489 00	427 00	62 00	....
Paper hanger—									
Champaign.....	American...	10	234 00	50 00	\$156 00	440 00	621 00	.....	\$181
Plasterer—									
Joliet.....	American...	4	432 00	50 00	10 00	492 00	500 00	.....	8
Printer—									
Chicago	American...	6	720 00	50 00	.....	770 00	745 00	25 00	....
Puddler—									
Chicago	Irish...	6	520 00	640 00	.....	1,160 00	1,163 00	.....	3
Quarryman—									
Joliet.....	Scandi'v'n	8	315 00	75 00	75 00	465 00	579 00	.....	114
Shoemaker—									
Joliet.....	German...	6	.....	300 00	.....	300 00	324 00	.....	24
Stone mason—									
Moline.....	German...	5	535 00	40 00	.....	575 00	483 00	93 00	....
Stone cutter—									
Alton.....	American...	2	350 00	25 00	.....	375 00	*269 00	106 00	....
Street-car driver—									
Chicago	Irish	10	895 00	55 00	.....	950 00	950 00	.....	....
Tailors—									
Champaign.....	Irish	7	624 00	480 00	200 00	1,304 00	854 00	450 00	...
Moline.....	Scandi'v'n	4	292 00	65 00	.....	357 00	352 00	5 00	....
Pontiac.....	English...	9	600 00	450 00	.....	1,050 00	680 00	370 00	...
Averages.....	.....	6.66	\$505 33	\$331 66	.....	\$903 66	\$628 66	.....	....
Watchmen—									
Chicago	American...	5	520 00	450 00	.....	970 00	786 00	184 00	....
Joliet.....	Irish	8	516 00	300 00	75 00	921 00	730 00	191 00	....
Averages.....	.....	6.5	\$533 00	\$375 00	.....	\$945 50	\$758 00	186 50	....
Wipers (locomotive)—									
East St. Louis.....	German...	6	360 00	180 00	.....	540 00	443 00	97 00	....
.....	Irish	9	300 00	12 00	40 00	352 00	374 00	.....	\$22
Totals.....111 families	.....	494	\$44,375	\$16,420	\$2,771	\$63,566	\$56,752	\$9,589	2775
Averages.....	.....	4.45	\$399 73	\$147 93	\$115 46	\$572 62	\$511 28	.....	....
Average surplus, 68 families	.....	.....	.....	.....	.....	.....	.....	141 01	.....
Average deficit, 34 families	.....	.....	.....	.....	.....	.....	.....	.....	\$81

We glean from this classification, that of the whole 163 occupations of which we have record, there are only 37 in which any wife labor is reported. The families in which wives are at work number 111 out of 2,129,—or only 5 per cent. of the whole. Of these 111 wives who are earning wages, there are 24 who have no children, 20 who have one child each, 20 who have two children each, and 47 who have more than two children each—12 of these having from six to eight. In 21 of these families more or less assistance is also rendered by children,—the average earnings of the children in these cases being \$115.46 per family. In each case (save one—shoemaker, out of work during the whole year,) the husband and father is at work, and reports actual earnings. The average for the husbands' earnings is \$399.73, as against a general average for husbands of \$525.27.

The contribution of the wife to the family income, as shown in the foregoing cases, is an average of \$147.93, which, added to that of the husband, \$399.73, brings the combined earnings up to \$547.66, but little more than the general average for unassisted husbands. A comparison as to the cost of living shows that for 2,129 families the average expenditure was \$507.66, while for this small group assisted by the wife, the average is \$511.28.

An exceptional case in this table should be noted for its influence upon the averages—that of a wife who derives \$1,296 per annum from keeping boarders, which, with \$811 contributed by the father and son, enable her to pay out \$1,829 for the maintenance of the establishment, and have \$282 left. Eliminating this family from the computation, and the average earnings of wives becomes reduced to \$137.45. This we find constitutes 25 per cent. of the combined earnings of these families.

In 19 of the 111 families, the earnings of the father alone equal the amount expended by the family, and the earnings of the wife go to the savings fund; but in the remaining 92 families, or 83 per cent. of the whole, the wages of the wife are essential to the family support. In 34 instances even this does not suffice, as that number in the table show a deficiency averaging \$81.62 per family at the end of the year. The greater number of families, however, in which wife labor contributes to the family income, show a net surplus in earnings over expenses, which in 68 families averages \$141.01 per family.

A further examination of this table enables us to deduce the following trade classification of the working wives, showing both the occupations and the average earnings of their respective husbands:

GENERAL CLASSES.	Whole No. families...	No. of occu- pations...	No. of wives at work...	EARNINGS OF—				Cost of living.
				Hus- bands.	Wives	Chil- dren.	Whole family	
Building trades	287	8	16	\$414 15	\$75 95	\$64 50	\$554 60	\$509 89
Shop trades	458	11	19	373 99	155 83	11 97	541 19	497 84
Metal workers	243	5	12	557 23	243 50	...	800 72	752 30
Railroad employes	149	4	5	550 00	144 00	10 00	704 00	579 12
Coal-mine employes.....	290	1	6	370 33	104 66	.....	483 33	494 66
Out-door occupations.....	500	5	49	478 35	145 28	25 32	650 96	618 29
In-door occupations.....	196	2	3	690 00	155 00	.....	845 00	583 25
Foremen.....	15	1	1	1,000 00	250 00	.....	1,250 00	734 00
	2,129	37	111	\$399 73	\$147 93	\$24 96	\$572 62	\$511 28

From this it appears that 44 per cent. of the whole are wives of men engaged in the out-door and unskilled occupations; that 17 per cent. are wives of men in the shop trades, and 14 per cent. in building trades. It will be observed, in regard to these two latter, that the earnings of the heads of the families are smaller even than the average for the unskilled class, indicating that the families receiving this assistance in the skilled trades are those of the least skilled workers, and those who require other earnings than their own for the support of their family.

In the matter of nationality it is found that 5+ per cent. of American families are partially supported by the earnings of the wife, and 4+ per cent. of the families of foreigners; while nearly all the negro families, or 72+ per cent., are so assisted.

One-fifth of all the wives earning wages are in Chicago, and the remainder are distributed among twenty-five other localities in the State.

The earnings of children constitute the next consideration in connection with the revenues of the family, and we present the tabulated results of our enquiries in such manner as to show not only the amount of their earnings, and the degree of dependence of the family upon them, but more especially the ages of the children employed, so as to be able to distinguish between that which is child labor proper, and that which should be considered adult labor, although the sons or daughters may be under the parental roof and jurisdiction.

We find in all 5,492 so-called children recorded in our returns from the working people of the State. In regard to these we are informed as to their age and sex, and whether they are at work, at school, or at home, and the amount of the earnings of those at work. This affords abundant data for a very full investigation into the status of the child in the workingman's family; the extent to which labor is imposed upon him at a tender age in order that the family may live, and the amount of pecuniary aid he contributes to that object. We have shown that there are 421 families in which the children are rendering some assistance towards the family support. In these families there are 569 children, of ages varying from 10 to 30 years, at work in the interest of the general fund. The following table affords a detailed record of each of these, classified according to the occupation of the head of the family, showing the location and nationality of the parents, and the age, sex and earnings of the children:

TABLE XXI.—*Children at work, their number, nationality, age, sex and earnings.*

OCCUPATION AND LOCATION OF FAMILY.	NATIONALITY.	Size of family	Earnings of Parents	EARNINGS OF CHILDREN.								Earnings of whole family	Expenses of family
				No.	Sex	Age	Amount	Sex	Age	Amount	Whole amount		
Bakers—													
Chicago.....	Scand'n.	7	\$375	2	M	15	\$48	F	18	\$150	\$198	\$573	\$523
".....	Dane.	4	375	1	M	18	300				300	675	618
".....	German.	5	400	1	M	16	150				150	600	580
Galesburg.....	Scand'n.	4	400	1	M	14	120				120	545	550
Averages.....	4	5	\$406	5	4	15 7	\$154	1	18	\$150	\$154	\$508	\$557
Barber—													
Pontiac.....	American.	10	420	1	M	18	200				200	620	705
Boiler-makers—													
Aurora.....	Scotch.	6	780	1	M	16	120				120	900	690
East St. Louis.....	"	10	870	2	M	18	180	F	24	360	540	1,416	898
Urbana.....	Irish.	8	480	2	M	18	240	M	17	416	656	1,136	714
Averages.....	8	8	\$712	5	4	17 2	\$239	1	24	\$360	\$261	\$1,150	\$767
Book-binder—													
Champaign.....	American.	8	930	2	M	18	50	M	16	50	100	1,036	896
Averages.....						2	\$50				\$50		
Blacksmiths													
Bloomington.....	American.	4	600	2	M	20	250	M	17	250	500	1,100	562
Carlisle.....	"	9	1,000	2	M	26	300	M	19	300	600	1,600	927
Champaign.....	"	5	500	1	M	18	150	M	15	50	200	800	625
Chicago.....	"	9	900	1	M	21	621				621	1,521	1,515
Galena.....	German.	6	400	1	M	18	120				120	580	450
".....	"	10	480	1	M	18	120	F	18	45	48	628	506
Galesburg.....	American	8	600	1	M	15	100				100	724	615
Jacksonville.....	Scotch.	4	1200	1	M	20	235				235	1,463	861
Sterling.....	German.	7	520	1	M	18	100				100	625	490
Urbana.....	American.	5	300	1	M	18	150	M	17	40	190	588	419
".....	German.	8	300	1	M	18	108				108	408	376
Averages.....	11	5 90	\$677	15	14	18 5	\$199	1	18	\$48	\$189	\$885	\$685

Table XXI.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	NATION-ALITY.	Size of family.....	Earnings of parents.....	EARNINGS OF CHILDREN.								Earnings of whole family.....	Expenses of family.....
				No.....	Sex.....	Age.....	Amount	Sex.....	Age.....	Amount	Whole amount		
<i>Book-keeper—</i> Springfield.....	American.	5	\$900	2	F	18	\$375	F	16	\$150	\$525	\$1,425	\$930
Averages.....								2	17	\$262			
<i>Bricklayers—</i> Aurora.....	Irish.....	5	468	1	M	17	300				300	768	660
Chicago.....	American.	7	500	2	M	20	720	F	18	200	920	1,420	1,135
DuQuoin.....	English...	7	650	1	M	14	90				90	740	577
Freeport.....	American.	11	546	2	M	18	150	M	16	140	290	836	795
Mattoon.....	"	5	420	1	M	20	420				420	840	554
Peoria.....	"	4	672	1	M	20	364				364	1,036	572
Sterling.....	Irish.....	6	525	1	M	17	200				200	725	506
Averages.....	7	6.42	\$541	9	8	17.7	\$298	1	18	\$200	\$287	\$909	\$685
<i>Brick-makers—</i> Alton.....	English...	6	444	1	M	13	111				111	555	510
Freeport.....	American.	6	288	2	M	14	60	M	12	20	80	368	403
Averages.....	2	6	\$366	3	3	16	64				\$95	\$461	\$456
<i>Bridge-builder—</i> Elgin.....	Scan.....	5	780	2	F	18	200	F	16	200	400	1,180	830
Averages.....								2	17	\$200			
<i>Bridge-tender—</i> Peoria.....	Irish.....	6	540	1	M	20	480				480	1,020	485
<i>Burnisher—</i> Aurora.....	American.	5	1746	1	M	17	365				365	2,111	1,829
<i>Butchers—</i> Carlinville.....	American	8	175	1	M	16	25				25	200	196
Galena.....	German..	3	192	1	M	15	156				156	348	260
Galesburg.....	Scan.....	4	600	1	M	13	96				96	696	525
Peoria.....	German..	5	450	1	M	20	360				360	810	960
Pontiac.....	Scan.....	11	432	2	M	18	240	M	16	225	465	897	738
Averages.....	5	6.2	\$369	6	6	16.3	\$183				\$183	\$590	\$415
<i>Cabinet-makers—</i> Chicago.....	German..	3	420	1				F	18	125	125	545	441
Galena.....	"	3	264	1	M	25	150				150	414	370
"	"	6	300	1	M	24	324				324	624	500
"	Irish.....	5	156	2	M	26	100	M	21	75	175	331	331
Sterling.....	Scan.....	8	480	1				F	16	20	20	500	450
Averages.....	5	5	\$324	6	4	24	\$162	2	16	\$72	\$132	\$482	\$418
<i>Cager—</i> Streator.....	American.	6	755	2	M	17	200	M	15	160	360	1,115	868
Averages.....				2		16	\$180						
<i>Car-builder—</i> Chicago.....	American.	8	410	1	M	16	40				40	450	498
<i>Car repairer—</i> Peoria.....	Irish.....	5	436	2	M	22	468	F	16	78	546	982	466
<i>Carpenters—</i> Alton.....	English...	10	825	1	M	17	50				50	875	799
"	"	7	333	2	F	18	50	F	14	30	80	413	373
"	German..	5	350	1	M	15	75				75	425	541
"	English...	4	780	1	M	19	280				180	1,000	1,070
Aurora.....	American.	8	648	1	M	20	281				281	929	920
"	"	7	655	1	M	16	200				200	855	704
"	"	3	704	1	M	16	187				187	891	625
Champaign.....	"	7	550	2	M	17	100	F	24	50	150	700	800

Table XXI.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	NATIONALITY.	Size of family.	Earnings of head of family.	EARNINGS OF CHILDREN						Earnings of family.	Expenses of family.	
				Age.	Sex.	Amount.	Age.	Amount.	Wholesale and retail.			
<i>Carpenters—Continued.</i>												
Champaign	American	4	\$230	1			F	20	\$240	\$240	\$870	\$458
		8	432	1	M	16			150	588	450	
	German	8	634	2	M	13	100	M	13	50	784	740
Chicago	Irish	11	410	1	M	20	100		300	740	740	
	German	7	500	1	M	1	100		100	600	480	
Danville	American	3	472	1	M	10	76		50	522	434	
		4	500	1			F	24	200	700	404	
		3	480	1	M	18	210		24	720	586	
DuQuoin		6	600		M	18	150		150	750	650	
East St. Louis	English	8	528	2	M	13	13	M	11	60	650	480
Fulton	American	5	400	1	M	2	240		240	700	722	
Galena	Scotch	3	398	1	M	20	308		308	706	476	
	American	6	552	1	M	23	250		50	802	500	
Galesburg		5	600	1			F	15	150	750	687	
Mattoon		1	570	2	M	20	200	M	18	150	820	411
		7	520	2	M	21	480	M	18	480	1000	730
Moline		7	630	2	M	19	150	F	17	40	840	841
		3	265	1	M	10	200		200	465	377	
		1	440	1	M	20	145		145	585	512	
Peoria		1	540	1	M	10	100		100	640	461	
		8	480	1	M	10	90		90	570	499	
		4	400	1			F	16	150	550	480	
	German	1	510	1	M	20	400		400	1010	520	
	American	1	578	2	M	20	410	M	18	312	1090	839
Springfield	English	1	480	1			F	20	150	630	428	
Sterling	American	7	132	2	M	16	0	M	15	40	250	457
Averages	44	64	\$513	13	51	109	\$186	16	\$115	\$575	\$408	
<i>Carriage makers</i>												
Champaign	American	7	634	2	M	21	180	M	19	300	1104	895
Jacksonville	English	9	780	1	M	17	250		200	1030	697	
Averages		8	\$707	1	17	215	\$215		\$250	\$1067	\$796	
<i>Carriage painters</i>												
Galena	English	1	620	2	M	20	72	M	17	72	744	740
Averages				2	20	72						
<i>Croakers</i>												
Chicago	German	8	400		M	20	0	M	18	200	600	1080
	American	4	400		M	18	200		200	600	600	
			400		M	17	200		200	600	600	
			400		M	18	200		200	600	600	
	German	8	400		M	19	200	M	15	50	650	650
	Polish	7	400		M	20	200	M	18	600	1000	1000
	English	7	400		M	20	200		200	600	600	
	German	7	400		M	14	200	F	17	200	600	600
Danville		7	400		M	14	200		200	600	600	
Quincy	American	7	400		M	14	200		200	600	600	
Averages	11	6	\$400	2	17	215	\$215	18	\$200	\$600	\$600	
<i>Croakers</i>												
Chicago	German	13	400	1	M	14	50		50	450	620	
	American	6	400	1	M	10	200		200	600	600	
Averages	7	6	\$400	2	12	150	\$150		\$200	\$600	\$610	
<i>Croakers</i>												
Chicago	American	1	600	2	M	10	200	F	18	141	900	750
Moline		1	600	2	M	10	200	M	17	200	900	750
Peoria	German	1	600	2	M	10	200	M	17	200	900	750
	English	1	600	2	M	10	200		200	900	750	
Averages	1	1	\$600	2	10	200	\$200	17	\$200	\$900	\$750	
<i>Croakers</i>												
Anna	Welsh	1	200		M	2	100		20	420	340	
	English	8	200		M	2	100	M	18	150	510	471
		1	200		M	2	100		20	420	410	
		1	200		M	2	100		20	420	410	

Table XXI.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	NATIONALITY.	Size of family	Earnings of parents.	EARNINGS OF CHILDREN.						Whole amount	Earnings of whole family	Expenses of family	
				No.	Sex.	Age.	Amount	Sex.	Age.				Amount
Coal Miners—Continued.													
Anna	English ..	4	\$175	1	M	19	\$175			\$175	\$350	\$373	
Alton	Scotch ..	10	312	4	M	16	112	F	18	\$35	497	973	
"	" ..	6	400	1	M	20	200	F	20	100			
Bartonville	Irish	8	336	2	M	16	120	M	16	120	210	576	
"	" ..	4	346	1	M	16	150			150	486	451	
"	English ..	8	336	2	M	20	150	M	17	150	300	596	
"	" ..	8	336	1	M	17	180			180	516	479	
"	" ..	8	450	1	M	14	125			125	575	467	
Belleville	Scotch ..	3	210	1	M	15	100			100	310	308	
"	English ..	8	250	2	M	19	250	M	17	120	370	579	
"	American	5	250	1	M	19	250			250	500	492	
Bloomington	English ..	7	391	3	M	16	100	M	20	200	450	838	
"	" ..	6	480	1	M	18	150			150	300	482	
Carlinsville	" ..	8	525	1	M	17	300	F	20	30	30	555	
Caseyville	Scotch ..	9	405	1	M	17	300			300	705	554	
"	" ..	8	270	1	M	18	135			135	405	449	
Centralia	Colored ..	3	350	1	M	15	120			120	470	349	
Coal City	Scotch ..	5	240	2	M	22	210	M	17	350	566	806	
"	" ..	8	360	1	M	14	200			200	560	684	
"	" ..	7	256	1	M	15	200			200	456	456	
Collinsville	English ..	5	150	2	M	17	75	M	15	75	150	244	
"	" ..	5	150	1	M	17	75			75	225	225	
"	" ..	8	150	1	M	15	100			100	250	250	
"	American	5	315	1	M	19	315			315	630	433	
Danville	Scotch ..	5	315	1	M	16	180			180	495	430	
"	" ..	5	315	2	M	16	157	M	14	158	315	598	
"	Irish ..	10	472	2	M	18	270	M	16	54	324	600	
"	American	4	472	1	M	15	240			240	672	464	
"	" ..	8	405	1	M	17	300			300	705	680	
"	German ..	4	450	1	M	15	50			50	500	400	
"	English ..	7	360	2	M	17	180	M	15	180	360	575	
"	American	11	450	2	M	19	300	M	17	300	600	726	
"	" ..	8	420	1	M	21	300	F	17	120	120	540	
"	Irish ..	5	....	3	M	24	300	F	30	100	760	555
"	German ..	6	420	1	M	15	120			120	540	262	
DuQuoin	English ..	8	329	1	M	18	310			310	639	632	
Equality	Irish ..	9	500	1	M	17	179			179	679	614	
"	American	3	354	1	M	22	354			354	708	413	
Gardner	Irish ..	5	270	1	M	16	35			35	305	219	
"	English ..	7	268	1	M	19	450			450	718	755	
"	" ..	7	312	2	M	20	420	M	17	420	840	1,013	
Pekin	Welsh ..	6	420	1	M	17	40	F	15	40	40	460	
"	Scotch ..	9	380	2	M	17	360	M	16	175	535	801	
"	Irish ..	6	325	1	M	17	325			325	650	638	
"	" ..							F	26	150			
Peoria	" ..	8	600	4	M	17	500	F	24	150	950	1,550	
"	" ..							F	17	150			
"	Scotch ..	7	468	2	M	24	468	M	20	240	708	1,176	
"	English ..	5	336	2	M	19	200	F	16	100	300	636	
"	" ..	5	480	1	M	22	78	F	22	78	558	449	
Peoria county	Irish ..	4	336	2	M	20	150	M	16	180	330	666	
"	American	7	336	2	M	19	200	M	17	150	350	686	
"	English ..	5	336	1	M	17	100	F	17	100	436	372	
"	" ..	5	336	1	M	16	100	F	16	100	436	458	
"	American	10	336	2	M	22	200	M	15	150	350	686	
Rentchler	" ..	3	168	1	M	18	168			168	316	477	
Streator	Irish ..	9	368	2	M	17	368	M	14	172	540	898	
"	" ..	6	420	3	M	21	420	M	16	150	990	1,410	
"	English ..	3	750	1	M	19	500			500	1,250	440	
"	" ..	11	481	3	M	14	130	F	16	50	230	711	
"	" ..						50						
"	English ..	8	430	1	M	22	240			240	670	621	
"	American	8	270	1	M	18	180			180	450	433	
"	" ..	6	250	2	M	16	100	M	16	75	125	424	
"	Welsh ..	6	380	1	M	14	150			150	530	584	
Summerfield	Scotch ..	9	175	1	M	18	50	F	18	50	225	254	
Averages	67	4.98	\$333	85	17	7	\$212	15	18.6	\$93	\$193	\$627	\$558

Table XXI.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	NATION-ALITY.	Size of family.....	Earnings of parents.....	EARNINGS OF CHILDREN.						Whole amount	Earnings of whole family	Expenses of family.....
				No.....	Sex.....	Age.....	Amount	Sex.....	Age.....	Amount		
<i>Coopers—</i>												
Alton.....	German...	4	\$250	1	...	...	...	F	14	\$50	\$50	\$303
Champaign.....	English...	9	600	1	M	21	\$660	...	...	...	660	750
Chicago.....	Irish.....	8	340	1	M	16	120	...	...	...	120	683
.....	German...	7	504	2	M	15	100	M	12	100	200	603
Averages.....	4	7	\$423	5	4	16	\$225	1	14	\$50	\$206	\$586
<i>Curriers—</i>												
Chicago.....	Irish.....	13	500	2	M	26	400	M	21	400	800	1,347
.....	German...	4	480	1	...	...	...	F	17	120	120	549
.....	American.	3	444	1	M	22	350	...	...	...	350	460
Averages.....	3	6.66	\$474	4	3	23	\$287	1	17	\$120	\$317	\$785
<i>Engineers (Loco.)—</i>												
East St. Louis.....	American.	4	780	1	...	...	...	F	27	240	240	1,147
Rock Island.....	German...	8	780	1	M	19	255	...	...	...	255	656
Averages.....	2	6	\$780	2	1	19	\$255	1	27	\$240	\$247	\$901
<i>Engineers (Stat'y)—</i>												
Alton.....	Scotch....	6	495	1	...	...	...	F	16	50	50	452
East St. Louis.....	American.	4	728	1	...	...	...	F	18	104	104	674
Moline.....	.....	4	600	2	M	20	520	M	17	325	845	1,440
Sterling.....	.....	5	480	2	M	19	150	M	16	125	275	634
Averages.....	4	7.75	\$575	6	4	18	\$280	2	17	\$77	\$212	\$800
<i>Express drivers—</i>												
Chicago.....	Irish.....	7	756	2	M	28	338	M	24	320	658	1,233
.....	German..	8	720	1	M	21	260	...	...	...	260	930
Averages.....	2	7.5	\$738	3	3	24.3	\$306	...	...	...	\$459	\$1,081
<i>Farm hands—</i>												
Mattoon.....	American.	9	216	1	M	17	96	...	...	...	96	310
.....	.....	9	420	1	M	20	432	...	...	...	432	852
Averages.....	2	9	\$318	2	2	18.5	\$264	...	...	...	\$264	\$581
<i>Fireman (Loco.)—</i>												
Pontiac.....	American.	3	600	1	M	21	480	...	...	...	480	450
<i>Firemen (Stat'y)—</i>												
Champaign.....	American.	7	436	2	M	14	72	F	17	\$50	122	477
Joliet.....	Irish.....	10	467	2	M	13	50	F	22	240	290	750
Averages.....	2	8.5	\$451	4	2	13.5	\$61	2	19.5	\$145	\$103	\$613
<i>Fisherman—</i>												
Moline.....	Scan.....	8	210	2	M	20	240	M	17	90	330	578
Averages.....	1	...	...	...	2	18.5	\$165	...	...	...	...	...
<i>Flagman—</i>												
Aurora.....	Irish.....	4	\$312	1	M	15	\$50	...	...	...	\$50	\$337
<i>Foremen—</i>												
Belleville.....	American.	8	1010	2	M	18	612	M	16	\$180	792	1,410
Chicago.....	French....	6	1200	1	...	...	...	F	20	300	300	1,430
East St. Louis.....	American.	3	792	1	...	...	...	F	20	250	250	679
Joliet.....	Irish.....	6	1520	1	M	20	1,020	...	...	...	1,020	1,949
.....	.....	10	692	2	M	16	100	M	14	50	120	891
Averages.....	5	6.6	1042	7	5	16.8	\$392	2	20	\$275	\$358	\$1,271
<i>Furnace men—</i>												
Joliet.....	American.	4	637	1	M	22	537	...	...	...	537	797
.....	Irish.....	6	575	1	M	12	48	...	...	...	48	503
Averages.....	2	5	\$606	2	2	17	\$292	...	...	...	\$292	\$650

Table XXI—Continued.

OCCUPATION AND LOCATION OF FAMILY.	NATION-ALITY.	Size of family.....	Earnings of parents.....	EARNINGS OF CHILDREN.								Earnings of whole family	Expenses of family.....
				No.....	Sex.....	Age.....	Amount	Sex.....	Age.....	Amount	Whole amount		
<i>Gardener—</i> Joliet.....	German...	11	\$380	2	M	14	\$48	M	12	\$74	\$72	\$452	\$470
Averages.....	1	.....	.....	2		19	\$46	.....	.....	.....	.....	.....	.....
<i>Gilder—</i> Springfield.....	English...	12	\$720	2	M	18	240	M	16	\$144	\$384	\$1,104	\$920
Averages.....	1	.....	.....	2		17	\$192	.....	.....	.....	.....	.....	.....
<i>Grinder—</i> Moline.....	Scan.....	6	\$650	1	M	13	150	.....	.....	.....	\$150	\$800	\$593
<i>Harness-makers—</i> Chicago.....	German...	5	432	1	M	19	200	.....	.....	.....	200	632	600
.....	American.	4	600	1	M	20	300	.....	.....	.....	300	900	1,175
.....	Irish.....	5	672	1	M	18	400	.....	.....	.....	400	1,072	1,100
Jacksonville.....	American.	4	702	1	M	19	600	.....	.....	.....	600	1,302	669
.....	.....	6	624	1	M	18	250	.....	.....	.....	250	874	621
Averages.....	5	4.8	\$606	5	5	18.8	\$350	.....	.....	.....	\$350	\$956	\$833
<i>Heater—</i> East St. Louis.....	English...	5	1322	1	M	18	222	.....	.....	.....	222	1,544	911
<i>Hod-carriers—</i> Chicago.....	Pole.....	3	435	1	M	21	300	.....	.....	.....	300	735	315
.....	Irish.....	3	365	1	M	20	500	.....	.....	.....	200	565	392
Averages.....	2	3	\$400	2	2	20.5	\$250	.....	.....	.....	\$250	\$650	\$358
<i>Iron and Steel Workers—</i> Joliet.....	English...	6	1420	1	M	14	300	.....	.....	.....	300	1,720	708
Sterling.....	Irish.....	10	384	2	M	17	275	M	18	\$150	425	809	720
Averages.....	2	8	\$902	3	3	16.3	\$241	.....	.....	.....	\$241	\$1,264	\$714
<i>Janitor—</i> Pontiac.....	German..	9	700	2	M	18	300	M	16	\$276	576	1,276	678
Averages.....	1	.....	.....	2		17	\$288	.....	.....	.....	.....	.....	.....
<i>Laborers—</i> Alton.....	Colored	7	\$278	1	M	15	50	.....	.....	.....	\$50	\$328	\$328
Aurora.....	American.	6	384	1	M	17	150	.....	.....	.....	150	534	530
Bloomington.....	Irish.....	5	280	1	M	20	100	.....	.....	.....	100	380	350
.....	.....	3	180	1	M	20	420	.....	.....	.....	420	600	325
.....	.....	4	300	1	M	18	144	.....	.....	.....	144	444	325
.....	.....	6	300	2	M	20	350	M	19	350	700	1,000	420
.....	.....	6	300	1	M	22	450	.....	.....	.....	450	750	749
.....	.....	4	250	1	.....	.....	.....	F	18	300	300	550	340
.....	.....	4	400	1	M	20	624	.....	.....	.....	624	1,024	965
.....	German...	5	300	1	M	20	144	.....	.....	.....	144	444	274
Carlinville.....	American.	7	420	1	M	21	200	.....	.....	.....	200	620	507
Centralia.....	Colored..	3	459	1	M	16	175	.....	.....	.....	175	634	476
.....	American.	6	390	1	M	17	420	.....	.....	.....	420	810	559
.....	Colored..	3	300	1	M	13	30	.....	.....	.....	30	330	335
.....	.....	3	519	1	.....	.....	.....	F	16	96	96	615	424
.....	.....	8	270	2	M	19	180	F	17	96	276	546	526
Champaign.....	German..	5	468	1	M	14	156	.....	.....	.....	156	624	599
.....	American.	3	288	1	M	19	85	.....	.....	.....	35	323	329
.....	.....	10	312	2	M	18	165	M	16	150	315	627	554
.....	.....	7	120	2	M	25	200	M	20	200	400	520	465
Chicago.....	Bohemian	6	480	2	M	23	384	M	17	250	634	1,114	1,125
.....	.....	6	300	1	M	22	360	.....	.....	.....	360	660	675
.....	Scand.....	5	240	2	M	16	200	F	18	340	540	780	850
.....	.....	8	320	1	M	14	100	.....	.....	.....	100	420	427
.....	.....	5	408	2	M	11	100	M	9	100	200	608	652
.....	Irish.....	6	370	1	M	12	24	.....	.....	.....	24	394	315
.....	Colored..	9	467	1	M	14	85	.....	.....	.....	85	552	552
.....	American.	7	450	1	M	8	150	.....	.....	.....	150	600	510
.....	.....	7	460	1	M	10	100	.....	.....	.....	100	560	507

Table XXI.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	NATIONALITY.	Size of family.	Earnings of parents...	EARNINGS OF CHILDREN.						Whole amount.	Earnings of whole family.	Expenses of family.....	
				No.	Sex.	Age.	Amount.	Sex.	Age.				Amount.
Laborers—(Continued.)													
Chicago.....	American.	8	\$480	2	M	12	\$50	M	14	\$60	\$110	\$500	\$525
	Irish.....	6	336	1	M	20	300				300	636	578
	"	4	250	2	M	19	250	F	17	150	400	650	489
	"	4	274	2	M	14	160	M	12	90	250	624	524
	American.	8	412	1	M	14	100				100	532	552
	German.....	9	400	1	M	10	100				100	460	453
	"	5	300	1	M	8	300				300	600	392
	"	8	370	1	M	15	125				125	500	500
	"	5	360	2	M	16	400	F	20	240	640	1,000	1,018
	Irish.....	6	280	1	M	15	128				128	413	389
Danville.....	"	4	300	1	M	18	240				240	540	240
	American.	6	300	1	M	17	200				200	600	483
	"	8	300	1	M	17	75				75	485	428
	"	3	300	1	M	18	250				250	610	357
	"	1	400	1	M	14	100				100	550	561
	"	6	204	1	M	16	100				100	369	400
	"	1	50	1	M	14	25				25	75	150
	"	4	300	1	M	20	120				120	420	326
	"	5	432	1	M	17	350				350	782	585
	Irish.....	7	300	1	M	15	0				50	350	184
	"	6	288	2	M	20	240	M	16	60	300	588	608
East St. Louis.....	"	3	700			20	50				50	770	741
	American.	9	530	1	M	18	84				84	600	515
Elgin.....	"	7	900	2	M	15	164	M	13	100	264	624	585
Equality.....	"	5	215	1	M	16	215				215	539	319
Freeport.....	German....	7	400	1	M	14	30				30	450	371
Galena.....	American.	9	100	1	M	20	100				100	295	296
	"	10	200	2	M	24	231	F	23	48	279	641	600
	German.....	10	480	2			1	F	20	60	108	588	500
	Irish.....	9	315	1	M	22	315				315	630	550
Fulton.....	"	4	300	1	M	22	300				300	720	525
	"	7	120	1	M	14	90				90	410	430
Galesburg.....	Scand'v'n.	11	24	2	M	12	6	F	10	50	110	431	460
	"	4	200	1	M	24	312				312	602	300
	American.	8	300	1	M	14	25				25	337	483
Joliet.....	Colored....	5	378	1	M	10	8				8	586	587
	French.....	11	500	2	M	19	200	M	14	100	300	805	805
Moline.....	Scand'v'n.	7	500	1	M	16	120				120	435	542
	"	6	90	1	M	17	100				150	510	452
	"	6	360	1	M	17	90				90	450	318
	Colored..	4	468	1	M	16	200				200	668	420
	American.	4	420	2	M	17	50	M	14	25	75	495	450
	German.....	4	280	2	M	19	50	M	16	75	225	505	437
	Irish.....	4	432	1	M	18	375				375	807	513
	"	5	315	2	M	17	200	M	15	125	325	640	446
	"	4	396	2	M	19	300	M	17	250	550	946	602
Peoria.....	"	6	270	1				F	16	180	180	450	550
	American.	4	270	1	M	16	100				100	370	395
	Scotch.....	9	450	1	M	15	150				150	600	546
	American.	5	360	2	M	18	150	M	14	75	225	585	552
	"	4	360	1				F	15	75	75	435	378
	German.....	5	468	1	M	15	208				208	676	519
	Irish.....	6	360	1	M	19	360				360	620	421
	American.	6	314	2	M	20	180	M	18	208	688	1,012	709
	Irish.....	7	308	2	M	22	104	F	18	150	674	1,052	719
	English.....	5	378	1	M	15	168				168	546	476
	American.	5	270	1	M	17	170				150	420	474
	Irish.....	5	360	1	M	14	168				168	528	360
	American.	4	360	1	M	16	300				312	672	367
	Scotch.....	8	378	2	M	20	500	F	16	78	598	976	605
	German..	5	378	1	M	16	208				208	586	315
	American.	5	378	1	M	19	312				312	690	440
	Irish.....	5	468	2	M	12	50	F	15	158	208	676	452
Peoria County.....	English.....	5	252	1	M	16	144				144	396	293
Pontiac.....	Colored....	3	240	1	M	14	80				200	440	306
Rock Island.....	Irish.....	8	315	1	M	19	100				100	415	370
	"	6	540	1	M	19	100				100	640	471
	American.	8	234	1	M	16	80				81	315	423
	German.....	5	264	1	M	18	250				250	514	568

Table XXI.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	NATIONALITY.	Size of family...	Earnings of parents	EARNINGS OF CHILDREN				Whole amount	Earnings of whole family	Expenses of family...				
				No.	Sex.	Age...	Amount							
Laborers—(Continued.)														
Springfield.....	American.	7	\$450	2	M	20	\$480	M	16	\$225	\$705	\$1,155	\$947	
Sterling.....	Irish.....	8	380	1	F	14	960	F	14	60	60	444	588	
Averages.....	101	5.89	\$352	17	4	17	6	\$185	16	17½	\$182	\$179	\$581	\$948
Laborers—(Railroad)—														
Chicago.....	Scand'n.	8	450	2	M	15	120	F	13	80	200	650	650	
East St. Louis.....	American.	5	240	2	M	18	532	M	16	450	982	1,222	1,867	
	Irish.....	10	500	1	M	16	365				305	949	828	
Averages.....	8	7.66	\$424	5	4	16	2	\$306	1	13	\$80	\$309	\$940	\$948
Laborers—(Coal mines)—														
Gardner.....	English.....	6	250	2	M	15	100	F	16	12	112	302	302	
Coal City.....	Irish.....	8	325	2	M	24	520	M	17	250	770	1,097	896	
Averages.....	2	7	\$288	4	3	18.6		\$287	1	16	\$12	\$230	\$729	\$628
Lead Miner—														
Galena.....	Irish.....	5	260	1	M	24	100				100	362	358	
Lumber handlers—														
Chicago.....	Bohemian	9	320	1	M	12	80				80	400	403	
	German.....	7	300	1	M	14	200				200	500	502	
Averages.....	2	8	\$310	2	2	13		\$140			\$140	\$450	\$452	
Machinists—														
Belleville.....	German.....	3	900	1				F	16	156	156	756	622	
		7	748	1	M	11	100				100	748	676	
Chicago.....	American.	7	540	1	M	16	500				500	1,044	1,050	
East St. Louis.....	Irish.....	9	230	1	M	14	432				432	1,362	930	
Averages.....	4	6.5	\$500	4	3.5	13.6		\$344	1	16	\$156	\$297	\$977	\$819
Machinists (Railroad)—														
Champaign.....	German.....	7	480	2	M	15	30	F	20	25	55	535	634	
East St. Louis.....	American.	6	912	1	M	20	618				618	1,560	1,052	
Galesburg.....	Dane.....	7	720	2	M	12	30	M	12	30	60	780	545	
	American.	5	700	1	M	12	104				104	804	666	
Averages.....	4	6.25	738	1	5	14	2	\$168	1	20	\$25	\$147	\$919	\$724
Marble workers—														
Belleville.....	German.....	9	468	1	M	15	208				208	676	689	
Mattoon.....	American.	8	600	1	M	18	360				360	1,408	753	
Sterling.....		9	300	2	M	18	150	M	16	100	250	850	717	
Averages.....	3	7	572	1	1	16	7	\$204			\$204	\$844	\$719	
Master mechanic—														
Urbana.....	American.	7	1800	2	M	22	800	M	20	580	1,380	3,180	1,117	
Averages.....				2		21		\$690						
Millers—														
Peoria.....	Irish.....	7	305	1	M	17	150	M	15	100	250	642	490	
Sterling.....	American.	4	408	1	M	18	100				100	568	566	
Averages.....	2	5.5	430	1	3	16	6	\$175			\$175	\$605	\$522	
Moulders—														
Chicago.....	French.....	4	700	1	M	16	50				50	754	832	
Freeport.....	German.....	4	600	2	M	18	160	M	16	100	260	920	736	
Joliet.....	Irish.....	11	612	3	M	21	612	M	18	100	812	1,424	1,896	
Peoria.....	".....	8	800	1	M	15	144				144	1,006	606	
Quincy.....	American.	9	608	1	M	15	100				100	1,108	1,045	
Springfield.....	English.....	5	680	1				F	17	200	200	880	890	
Averages.....	6	6.83	756	2	8	16	8	\$171	1	17	\$200	\$174	\$1,017	\$916

Table XXI.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	NATIONALITY	Size of family	Earnings of parents.	EARNINGS OF CHILDREN.						Earnings of whole family	Expenses of family.				
				No.	Sex	Age	Amount	Sex.	Age.			Amount	Whole amount		
<i>Navier—</i> Belleville ..	English	6	1080	1	M	18	\$318			\$318	\$1,398	\$957			
<i>Organ builder—</i> Chicago ..	Scand. ..	4	400	1	M	21	524			564	964	652			
<i>Painters—</i> Aurora ..	American.	3	576	1	M	18	50			50	626	606			
Chicago ..		9	495	1				F	17	\$78	78	583			
Galena ..	English	3	262	1	M	30	262			262	524	450			
Peoria ..	German	10	432	1	M	20	520			520	952	599			
" ..	American	4	432	1	M	15	120			120	552	516			
" ..		5	412	1	M	15	208			208	612	421			
" ..	German	5	420	1	M	15	182			182	602	415			
Averages ..	7	5	65	\$422	6	5	19	2	\$258	1	17	\$78	\$236	\$625	\$509
<i>Paper hangers—</i> Champaign ..	American	10	284	1	M	20	156			156	440	621			
Joliet ..	French	11	705	1				F	18	270	50	955	883		
Averages ..	2	10	5	\$494	2	1	20	\$156	1	18	\$250	\$203	\$697	\$752	
<i>Pattern makers—</i> Galesburg ..	Scand. ..	6	811	3	M	15	312	F	24	300	728	1,539	960		
Mattoon ..	American	4	648	2	M	18	240	M	15	240	480	1,128	640		
Averages ..	2	5	\$729	5	3	16	\$264	2	22	\$206	\$241	\$1,553	\$800		
<i>Pit smelter—</i> Alton ..	English	3	220	1				F	17	70	290	294			
<i>Pit-top man</i> Alton ..	Welch. ..	4	300	1	M	25	325			325	625	727			
<i>Plasterers</i> Alton ..	American	9	436	1	M	15	104			104	540	546			
Aurora ..	English	7	612	1	M	22	100			100	712	804			
Centralia ..	American	4	560	1	M	17	315			315	871	640			
Darville ..		9	400	1	M	16	50			50	450	430			
Joliet ..	"	4	482	1	M	10	10			10	492	500			
Averages ..	5	6	6	\$502	5	5	16	\$110			\$116	\$618	\$584		
<i>Plow-factory man—</i> Galena ..	German ..	8	600	1	M	19	300			300	900	500			
<i>Plumber</i> Rock Island ..	American	4	600	1	M	16	200			200	800	472			
<i>Potter—</i> Galena ..	American.	7	324	1	M	20	184			184	508	450			
<i>Printers</i> Chicago ..	English	5	800	2	M	16	208	M	14	208	416	1,216	1,015		
" ..	American	5	580	1				F	16	150	150	730	720		
" ..	"	4	738	2	M	20	200	F	16	100	300	1,038	1,166		
" ..	"	3	600	1				F	20	100	300	900	827		
Averages ..	4	5	5	\$779	6	3	16	\$208	1	17	\$203	\$204	\$986	\$932	
<i>Publican</i> East St. Louis ..	Welsh	1	1,000	1	M	17	421			421	1,421	902			
<i>Publican's helper—</i> Centralia ..	American	4	64	1	M	20	25			255	750	603			
<i>Quarry men—</i> Aurora ..	German	6	64	1	M	16	18			180	604	595			
Joliet ..	Scand	8	390	1	M	12	75			75	465	579			
" ..	Irsi	6	40	2	M	14	20	F	17	125	375	531			
Averages ..	3	6	60	\$443	4	3	15	6	\$125	1	17	\$125	\$125	\$601	\$588

Table XXI.—Continued.

OCCUPATION AND LOCATION OF FAMILY.	NATION-ALITY.	Size of family ...	Earnings of parents....	EARNINGS OF CHILDREN.						Whole amount	Earnings of whole family	Expenses of family.....				
				No.....	Sex.....	Age....	Amount	Sex.....	Age....				Amount			
Roller—																
East St. Louis.....	Welsh....	6	1000	1	M	17	\$421				\$421	\$1,421	\$934			
Rolling-mill hands—																
Chicago.....	Irish....	5	420	2	M	20	300	F	16	100	400	820	763			
Joliet.....	Irish....	8	324	1	M	21	354				324	648	657			
Joliet.....	Irish....	4	211	2	M	20	350	F	17	100	450	711	536			
Averages.....	3	5	46	3	3	20	3	\$324	2	16	5	\$100	\$234	\$726	\$652	
Sawyer—																
Chicago.....	American.	7	546	1	M	17	800				800	1,346	1,342			
Section bosses—																
Gardner.....	American.	7	740	1	M	14	80				80	620	547			
Matteson.....	American.	7	600	2	M	18	288	M	16	288	576	1,176	979			
Averages.....	2	7	670	3	1	16	\$218				\$218	\$898	\$743			
Shoemakers—																
Champaign.....	Irish....	11	390	3	M	19	100	F	17	75	231	621	585			
Chicago.....	Irish....	7	515	1	M	14	150				160	676	681			
Equality.....	German..	5	306	1	M	14	75				75	471	455			
Peoria.....	French...	5	624	1	M	19	416				416	1,040	503			
Pontiac.....	American.	10	480	1	M	24	150				150	630	455			
Pontiac.....	American.	7	600	2	M	25	410	M	20	200	540	900	545			
Averages.....	6	7	5	46	9	8	18	5	\$187	1	17	\$75	\$174	\$723	\$537	
Spinner—																
Alton.....	American.	9	270	3	M	16	180	F	18	135	432	702	702			
Averages.....				3	1	16	\$180	2	16	135						
Stone masons—																
Rock Island.....	French...	9	420	1	M	11	210				210	630	558			
Sterling.....	Scotch...	4	206	1	M	21	100				100	306	281			
Averages.....	2	13	\$313	2	2	20	\$155				\$155	\$468	\$419			
Street-car conductor—																
Chicago.....	Irish....	8	706	1				F	20	300	300	1,000	800			
Street-car driver—																
Chicago.....	Irish....	5	810	2	M	20	700	M	18	500	1,200	2,010	1,990			
Averages.....				2	1	19	\$600				\$600					
Tailors																
Champaign.....	Irish....	7	104	1	M	20	200				200	1,304	854			
Chicago.....	German..	7	300	1	M	13	300				400	1,300	875			
Jacksonville.....		7	300	2	M	2	218	M	17	156	374	774	711			
Moline.....	Scand'v'n	1	600	2	M	11	95	F	19	315	410	1,010	1,287			
Pontiac.....	German..	19	147	1				F	18	100	100	647	585			
Averages.....	5	8	2	1	5	18	2	\$214	2	18	5	\$207	\$217	1,007	\$862	
Transfers—																
Alton.....	American.	1	413	1	M	14	50				50	463	467			
Aurora.....	Irish....	7	58	1	M	16	50				50	428	390			
Bloomington.....	American.	4	0	1	M	25	50	M	13	50	600	1,150	627			
Chicago.....	Irish....	7	20	1	M	21	200				200	475	490			
Freeport.....	German..	8	5	1	M	16	104				144	519	519			
Galesburg.....	American.	8	618	2	M	18	80	M	13	72	152	800	594			
Rock Island.....	"	1	0	1	M	11	30				30	654	675			
"	"	1	50	1	M	14	50				126	486	529			
"	Irish....	11	85	3	M	20	100	F	20	100	372	1,197	1,213			
Averages.....	9	8	5	494	14	12	17	1	\$129	2	18	5	\$66	\$123	685	\$611

Table XXI.—Continued.

OCCUPATION AND LOCATION.	NATIONALITY.	Size of family.	EARNINGS OF CHILDREN.										Expenses of family.
			Earnings of parents.	No.	Age.	Amount.	Sex.	Age.	Amount.	Whole amount.	Earnings of whole family.		
Tile makers—													
Urbana	German.	6	\$498	1 M	21	\$100				\$100	\$568	\$545	
Turners													
Belleville	German.	6	360	1 M	16	100				100	460	461	
Champaign	American.	10	520	2 M	14	50	F	17	72	122	642	809	
Galena		8	300	1 M	18	150				150	450	450	
Mattoon	"	4	600	2 M	30	574		27	200	774	1,430	650	
Averages	5	6.8	\$489	7	5	18	8	2	22	\$136	\$191	\$575	
Toy maker—													
Chicago.	German.	8	375	1 M	14	50				50	425	500	
Trackman—													
Gardner.	Welsh.	9	567	1 M	15	54				54	621	618	
Upholsterers—													
Chicago.	German.	7	480	2 M	15	175	F	18	300	475	955	799	
	Bohemian.	7	360	1 M	18	300				300	660	447	
Averages	2	7	\$420	3	2	16	5	1	18	\$400	\$258	\$623	
Wagon maker—													
Danville	American.	5	675	1 M	17	300				300	875	620	
Watchman													
Joliet	Irish	8	846	1 M	14	75				75	921	730	
Well digger—													
Peoria	English	5	630	1 M	20	364				364	994	617	
Wood mechanics—													
Chicago	Irish	7	900	1			F	12	100	100	1,000	991	
Peoria	American	5	504	1 M	16	180				180	684	573	
Averages	2	6	\$762	2	1	16	1	12	\$100	\$280	\$842	\$782	
Wood-carver—													
Sterling	American	9	600	1 M	20	300				300	900	810	
Wiper locomotive													
East St. Louis	Irish	9	412	1 M	15	40				40	852	374	
Yard master													
East St. Louis	American	11	200	1 M	17	624				624	1,824	1,112	
Totals	421												
Averages		6.03	\$475		17.4	\$212	2	18.9	\$150	\$204	\$751	\$623	

The general results reached by this classification are, first, that the average size of families assisted by the labor of their offspring is much larger than the general average for families. In 2,129 families there was found to be an average of 4.62 persons to each family, while in these 421 families there is an average of 6.03 to each. Next, the average earnings of the heads of these families (\$475) is found to be less than the general average for heads of families (\$525.27) showing the greater need for assistance, though it is considerably more than the average for husbands whose wives are at work (\$399.73), showing the latter to be the more destitute.

Of the 569 so-called children, or, more properly speaking, youth, 479 are males and 90 are females. The average age of the former is 17.4 years, and that of the latter 18.9 years. The average earnings of the boys is \$212.45 per annum, and that of the girls \$150.00 per annum. Both sexes together add to the family income annually an average of \$204.34, or 27+ per cent. of the whole, per capita, and an average of \$276, or 36 per cent. of the whole, per family; making the combined earnings of these families \$751, which is materially greater than that of families at large.

These deductions are made from calculations embracing the whole number of individuals. There are also shown the averages for the several occupations, which possess a specific interest and may readily be referred to. Noticeable among these groups is that of 101 families of laborers, assisted by 127 children of an average age of seventeen and a half years, who earn an average of \$179 per annum, or 30 per cent. of the family earnings; also 67 families of coal miners, assisted by 100 children of an average age of eighteen years, who earn \$193, which is also 30 per cent. of the combined earnings; also 34 families of carpenters, in which 43 children are at work, earning \$177 each per annum, or 24+ per cent. of the total income of the family. Other features of interest relating to classes and individual families will appear upon examination of this table, which is very full as to the details of each case.

It will be observed at once that the greater number of these family helpers are not children in the general sense of the term, but rather past the ordinary school age, and old enough to be acquiring habits of industry and helpfulness, and assisting in their own support without detriment to themselves. We find, indeed, that the average age for the whole number of boys at work is 17.4 years, and that of girls 19.8 years, showing that the family assistance from this source, considered in the aggregate, should be regarded as the result of adult labor rather than child labor.

A closer analysis, however, of the foregoing table, with a view to discovering the real number of each age, gives us the results shown in the following table:

TABLE XXII.—*Showing the Number and Earnings of Children at specified ages.*

AGES.	No. at work of all occu- pations.....	No. of boys...	Average earnings...	No. of girls...	Average earnings...
10 years old and under	8	7	\$109 71	1	\$50 00
11	3	3	87 66	.....	.....
12	16	15	57 13	1	100 00
13	9	8	81 25	1	50 00
14	48	44	110 18	4	64 25
15	55	51	118 43	4	134 00
16	89	74	154 45	15	108 66
17	71	52	234 82	19	137 26
18	79	61	231 26	18	156 72
19	39	38	238 39	1	315 00
20	69	58	334 93	11	183 72
21	23	22	340 95	1	350 00
22	20	17	358 76	3	137 00
23	5	4	268 50	1	48 00
24	14	9	298 33	5	232 00
25	6	6	322 10	.....	.....
26	7	5	299 00	2	150 00
27	3	1	800 00	2	220 00
28	1	1	338 00	.....	.....
30	4	3	401 33	1	100 00
	569	479	\$212 45	90	\$150 00
Under 16 years of age	139	128	81 45	11	90 00
16 years old and over	430	351	254 56	79	154 48
Under 21 years of age.....	486	411	186 51	75	138 52

We here find the real number of workers of each age from 10 to 30, their sex and earnings, and can make any arbitrary distinction desired between children and youth. Assuming those under 16 years of age to belong at school and at play, rather than at work, we have a total of 139, or one-fourth of the whole, who are working children proper, of whom 128 are boys and 11 girls. Computing their earnings we have the gross sum of \$11,418.70, or a per capita average of \$82.15, that for boys being \$81.45, and that for girls \$90 per annum. As it has been shown that 36 per cent. of the revenue of families assisted by children and youth is derived from the labor of those members of the family, it follows that one-fourth of that assistance, or in exact figures .098 per cent. of the whole, is rendered by the children from 10 to 15 years of age inclusive.

We note further in considering this table that the age at which the greatest number of boys are at work is 16, and that more than half of the whole number are from 16 to 20 years of age inclusive; while more than half of all the girls at work are from 16 to 18 years of age inclusive.

In round numbers one-fourth of the whole are under 16, and four-fifths are under 21 years of age.

Only two children under 10 years of age are found at work, these being both 8 years of age, and working in Chicago; there are only eleven under 12, and thirty-five out of 569 under 14 years of age. It should be borne in mind that this is not a special enquiry on the subject of child-labor in the factories or cities of the State, but merely a summary of such deductions as are afforded by the consideration of 2,129 average families of workingmen from the State at large.

To show the geographical distribution of the children under consideration the following table is prepared, giving the number in each place and their ages.

TABLE XXIII.—*Showing the location of the Children at Work, their number and ages.*

PLACES.	Whole num- ber.....	10 years old and under.	11 years old.	12 years old.	13 years old.	14 years old.	15 years old.	Whole num- ber under 16.	16 years old and over....
Alma.....	5								5
Alton.....	21				4	4	3	8	13
Aurora.....	14						1	1	13
Bartonville.....	7					1		1	6
Belleville.....	11		1				2	3	8
Bloomington.....	19				1			1	18
Carlinville.....	4								4
Caseyville.....	2								2
Centralia.....	11				1		1	2	9
Champaign.....	30					3	4	7	23
Chicago.....	100	5	1	6	1	11	9	33	67
Coal City.....	6					1	1	2	4
Colinsville.....	6						2	2	4
Danville.....	35					4	5	9	26
DuQuoin.....	3					1		1	2
East St. Louis.....	18		1		1	1	1	4	14
Elgin.....	4				1		1	2	2
Equality.....	4					1		1	3
Freeport.....	9			2		2		4	5
Fulton.....	3					1		1	2
Galena.....	24						1	1	23
Galesburg.....	15	1		4	1	3	3	12	3
Gardner.....	8					1	2	3	5
Jacksonville.....	5								5
Joliet.....	24	2		3	1	5		11	13
Mattoon.....	13						1	1	12
Moline.....	26				1	1	3	5	21
Pekin.....	4						1	1	3
Peoria.....	55			1		2	9	12	43
Peoria County.....	8						1	1	7
Pontiac.....	11					1		1	10
Quincy.....	2						2	2	
Kentchler.....	1								1
Rock Island.....	12					1		1	11
Springfield.....	9								9
Sterling.....	15						1	1	14
Streator.....	16					3	1	4	12
Summerfield.....	1					1		1	
Urbana.....	8								8
Totals.....	569	8	3	16	9	48	55	139	430

This indicates the exact location of the 569 children, and affords a new arrangement as to their ages, which still further emphasizes the smallness of the number of the young children engaged at labor for wages.

Another analysis shows the relative number of all the children who are reported as at home, at school, and at work. Those reported as at home are understood to be engaged in household duties, or pleasures according to ages, but as not attending school or going out to work.

TABLE XXIV—*Showing the number of Children in each place at Work, at School, and at Home.*

PLACES.	No. of fami- lies in which there are children....	Whole num- ber of chil- dren	NUMBER OF CHILDREN		
			At work	At school	At home
Alena	5	12	5	6	1
Alton	45	152	21	71	60
Aurora	67	173	14	94	65
Bartonville	19	58	7	29	22
Belleville	54	173	11	85	82
Bloomington	52	156	19	85	52
Carlinville	14	51	4	24	23
Caseyville	4	22	2	15	5
Centralla	41	90	11	37	42
Champaign	72	223	30	96	97
Chicago	303	982	100	380	502
Coal City	15	46	6	18	22
Collinsville	26	79	6	18	55
Danville	113	342	35	165	142
DuQuoin	13	84	3	18	13
East St. Louis	72	213	18	83	112
Elgin	13	26	4	12	10
Equality	30	72	4	28	40
Freeport	15	55	9	31	15
Fulton	10	28	3	13	12
Galena	43	152	24	70	58
Galesburg	49	124	15	63	46
Gard er	25	81	8	32	41
Gartside	5	11	.....	7	4
Jacksonville	44	103	5	39	59
Joliet	43	178	24	18	76
Lincoln	4	13	.....	4	9
Mattoon	29	88	13	50	25
Moline	114	304	26	117	161
Mt. Pulaski	2	8	.....	4	4
Pekin	24	57	4	15	38
Peoria	154	407	55	160	192
Peoria County	22	69	8	40	21
Pontiac	33	109	11	46	52
Quincy	13	32	2	14	16
Rentchler	1	2	1	1	.....
Rock Falls	4	14	.....	9	5
Rock Island	85	263	12	129	123
Springfield	28	96	9	49	38
Sterling	48	155	15	78	62
Streator	48	162	16	66	80
Summerfield	1	7	1	4	2
Urbana	16	55	8	27	20
Totals	1,812	5,482	569	2,410	2,503
Percentages .....	.....	.....	10+	44	45+

This table gives the whole number of families having children, which is 1,812 out of 2,129; the whole number of those children, which is 5,482; and distributes them into the three classes indicated, showing 10 per cent. at work, 44 per cent. at school, and 46 per cent. at home. As compared with these results, we find that in Massachusetts* there are 26 per cent. of the children of all ages at work, 44 per cent at school, and 30 per cent. at home, which shows that while the same proportion is kept at school in the two States, the proportion at work in the latter is much larger, and is recruited from those who, in this State, are variously occupied in domestic duties or pleasures at home.

In addition to the foregoing local distribution of the 5,482 children under consideration, we also present a classification of the same with regard to the nationality of the parents, in connection with the same arrangement by ages, as follows:

TABLE XXV—Showing the Nationality of the Parents whose Children are at Work.

AGES.	No. of children at work of all nationalities.....	PARENTAGE.											
		American.....	English.....	Scotch.....	Irish.....	Welsh.....	German.....	Scandinavian.....	Danish.....	Polish.....	French.....	Bohemian.....	Colored.....
10 years old and under.....	8	3	1				2	2					1
11	3						1	1					
12	16	4			5		2	2	2			1	
13	9	2	2		1			3					1
14	48	15	6	2	9	1	10	2			1		2
15	55	15	5	3	9	2	15	4					2
16	89	37	7	9	15		12	5			1		3
17	71	26	12	3	20	2	3	3				1	1
18	79	36	8	3	13		11	4	1		1	2	
19	39	12	5	1	10		6	1			3		1
20	69	27	6	3	19	1	9	2			1	1	
21	23	7	3	1	7		3	1		1			
22	20	6	4	2	7							1	
23	5	3			1							1	
24	14	4		1	6		1	2					
25	6	3				1	2						
26	7	1	2	1	3								
27	3	3											
28	1				1								
29	4	1	2		1								
Totals.....	569	205	63	29	127	7	77	32	3	1	7	7	11
Under 16 years of age.....	139	39	14	5	24	3	30	14	2		1	1	6
Per cent. of the whole.....	24	19	27	17	18	43	40	44	66		14	14	54

* Report of 1875.

From this it appears that 205, or 36 per cent. of the children, have American parentage; that 226, or 40 per cent., have parents native to Great Britain, and 77, or 13+ per cent., are of German extraction, the parents of the remainder being of various nationalities. The number of those of each race who are under 16 years of age is also given, with the percentage of the same to the whole. As to the leading races, it is shown that while 24 per cent. of all the working children are under 16 years of age, only 19 per cent. of those of American parents are in that class, and of the children of foreign parents 30 per cent. are at work before reaching their sixteenth year.

Classifying these children further according to the nationality of parents, we arrive at the following results as to the relative numbers of each race who are at work, at school, and at home:

TABLE XXVI.—*Showing the number of Children of each nationality who are at Work, at School, and at Home.*

NATIONALITY.	Whole No.	At work.	At school	At home.
American.....	2,282	219	974	1,089
German.....	974	119	448	407
Irish.....	898	78	413	407
English.....	487	59	212	166
Scandinavian.....	334	31	139	164
Scotch.....	240	28	107	95
Welsh.....	56	6	26	24
Canadians.....	35	.....	10	25
French.....	67	8	30	29
Danes.....	25	3	10	12
Italians.....	32	.....	3	29
Bohemians.....	41	6	17	18
Poles.....	7	.....	1	6
Swiss.....	21	2	8	11
Colored.....	43	10	12	21
Totals.....	5,482	569	2,410	2,503

In this presentation 9 per cent. of the children of American parents are found at work, 43 per cent. at school and 48 per cent. at home, while of the descendants of the natives of Great Britain 10 per cent. are at work, 46 per cent. at school, and 44 per cent. at home. The German families show 12 per cent. of their children at work, 46 per cent. at school, and 42 per cent. at home. Other interesting facts relative to children of different antecedents may be developed upon further examination of this table.

A final grouping of children, characterized by the occupation of parents, completes our consideration of the earnings and general status of the children of workingmen's families. This table indicates in some measure the influence of the employment of the father upon the development of the child, so far at least as that is affected by the necessity for labor or by opportunities for attending school.

TABLE XXVII—*Showing the number of Children by trade classification who are at Work, at School and at Home.*

OCCUPATION.	Whole No. of children	At work...	At school..	At home...
Building trades.....	674	73	326	275
Shop trades.....	1,109	117	514	478
Metal trades.....	601	45	279	277
Railroad employes.....	212	11	84	117
Coal mine employes.....	827	104	341	382
Out-door occupations.....	1,525	168	626	731
In-door occupations.....	477	43	211	223
Foremen, etc.....	57	8	29	20
Totals.....	5,482	569	2,410	2,503

Upon examination of these figures we find that the building and shop trades show 10 per cent. of the children at work; that among the metal workers, embracing many of the best paid classes, only 7 per cent. of the children are at work, while in out-door occupations and coal mine employments there are 13 per cent. at work. The percentage of those at school is also greatest in the skilled trades and smallest in the unskilled.

Without further elaboration of the details which may be derived from this series of tables by any careful examiner, we may recapitulate some of the leading deductions made in reference to the earnings of wives and children of workingmen, and to what extent the industrial classes in the State are dependent upon them, as follows:

1. Ten per cent. of the gross earnings of 2,129 families is derived from the labor of wives, outside their domestic duties, and of children of all ages.

2. Selecting 1,528 families in 26 different occupations, we find only 8 per cent. of their gross earnings derived from this source.

3. Out of 2,129 families, 511, or 24+ per cent., make use of wife or child labor, but only 400 or 18+ per cent. are forced to depend upon the proceeds of such labor for support, the remainder making comfortable incomes and annual savings by the aid of it.

4. In the whole number of families we find 5 per cent. assisted by the wages of wives, and 19 per cent. assisted by the wages of children.

5. The wives earn an average of \$137.45 per annum, which is 25+ per cent. of the average total income of their respective families. In 83 per cent. of the cases these earnings are essential to the family support; and one-third of them, or 30 per cent. of all the families in which the wives are at work, fail to make a living.

6. The children of all ages earn an average of \$276 per family, or 36 per cent. of the total income of those families, but only one-fourth of these are under 16 years of age, and their earnings constitute only .098 per cent. of the total earnings of all children.

7. Of all the families assisted by the earnings of children (421) two-thirds earn more than they expend, one-half the remainder is in debt, and the other half comes out even at the end of the year.

8. Eighty per cent. of the families in which children under 16 years of age are at work are actually dependent upon the earnings of those children for support.

9. Of the whole 5,482 children in the 2,129 families visited, 10 per cent. are at work, 44 per cent. are at school, and 46 per cent. at home.

10. Eighty-two per cent. of all families are supported by the earnings of the head of the family, and 18 per cent. require and receive the assistance of wives or children. The average earnings of working wives is 25 per cent., and of working children 36 per cent. of the total family income.

This completes the analysis of the sources of the income upon which the families of workmen subsist; but as the amount and character of earnings have but little significance except as compared with expenses, we next proceed to an examination of the family expenditures as a whole and in detail.

CHAPTER IV.

ANALYSIS OF THE FAMILY EXPENDITURES.

In pursuing our enquiries among workingmen we have endeavored to ascertain as many details in regard to their economic condition as possible, without intruding too closely upon purely personal affairs; and in addition to facts relating to their earnings, have procured a comparatively full record of the nature of the expenses which devolve upon families in various occupations and places.

The general division of the expense account is into twelve items: Rent, Fuel, Meat, Groceries, Clothing, Boots and Shoes, Dry Goods, Books, Papers, etc., Life Insurance, Trades Unions, Sickness, and Sundries; and although the uniformity of the returns in all these respects is not perfect, we still obtain a large number in which all these items are given with approximate exactness.

In the general table (XII), which embraces the record of each family in full, footings and averages are made for each occupation, where the details are sufficiently full to admit of legitimate averages, but as in many instances the expense items require special computations in order to arrive at their real proportions, we undertake in the present chapter to analyze them separately, and show what proportion of the whole cost of living is legitimately chargeable to each of the several accounts.

Some difficulty has been experienced in obtaining the specific amounts expended for meat and groceries, as cured meats are largely sold in connection with groceries, and usually enter into the groceries account. Likewise in regard to dry-goods, clothing and boots and shoes, the expenditure for these is not unfrequently given in one sum under the general head of clothing, so that some special examination of the two items, groceries and clothing, is essential to

correct deductions as to the average outlay for these purposes. In regard to the other items, however, there is no obscurity of this sort, as they are sufficiently distinctive in themselves to readily admit of separate estimates.

In general the classification of expenses adopted here covers all those common to every family; but in addition to ordinary living expenses we have made some enquiry on the subject of maintaining life insurance and labor organizations. Although the outlay for these purposes is by no means general, and comparatively few families add these to their items of expense, we are still able, by an inspection of the returns made, to derive some very interesting and suggestive information on these subjects, which abundantly compensates for the enquiry.

In considering the general features of the expense account we find they resolve themselves into four general heads: Shelter, Subsistence, Clothing, and Miscellaneous. Under the first we consider both rent and fuel, as essentially allied in their object of affording comfortable housing; under the second, all food supplies; under the third, dry-goods, clothing, boots and shoes; and under the general head, Miscellaneous, all items not otherwise classified.

SHELTER.

Our first object, therefore, is to arrive at the average cost to the workingman of the necessary shelter for his family. To show this we present two tables giving the average cost of rent and of fuel in different localities, and the average amounts expended for these purposes by people engaged in the different occupations.

To make the various conditions as definite as possible we give, in Table I, the size of the town in which the families live, the number of families on which the averages are based, the average size of the families, and the average number of rooms in the tenements occupied. These conditions being given, we show the average annual rental paid, and the average amount expended yearly for fuel per family in each of 43 different localities. In addition to this it is further shown what proportion of workingmen own the homes in which they live, and what proportion pay rent.

TABLE I.—Showing the average cost of Rent and Fuel, to families of Workingmen, in various Cities and Towns of Illinois.

PLACES.	Population.....	Average size of families	Average size of houses	No. owned.....	No. rented.....	ANNUAL RENTAL.	ANNUAL COST OF FUEL.
						Per family.	Per family.
Alma.....	165	4.4	3.6	.....	5	\$67 00	\$23 60
Alton.....	8,978	5.8	3.75	14	34	69 00	22 39
Aurora.....	11,875	3.9	4.86	41	52	112 00	54 50
Bartonville	450	6.4	3.3	.....	13	66 00	11 53
Belleville.....	10,682	4.8	3.38	12	51	96 00	23 40
Bloomington.....	17,184	4.1	3.66	52	20	91 00	33 43
Carlinville.....	3,118	5.4	3.	5	10	60 00	28 73
Caseyville.....	900	7.5	3.75	.....	4	75 00	12 25
Centralia.....	3,623	3.9	4.26	24	25	86 00	31 83
Champaign.....	5,106	4.3	4.8	51	47	81 00	34 39
Chicago.....	503,305	4.8	3.92	25	329	134 00	35 73
Coal City.....	568	5.2	3.73	6	9	58 00	28 78
Collinsville.....	2,839	4.7	3.51	8	21	73 00	14 84
Danville.....	7,735	4.5	3.17	55	76	67 00	25 00
DuQuoin.....	2,808	4.0	3.79	4	13	55 00	17 06
East St. Louis.....	10,000	4.3	3.69	20	73	126 00	27 51
Elgin.....	8,789	3.9	5.12	9	7	116 00	43 72
Equality.....	500	4.4	2.56	5	27	36 00	23 97
Freeport.....	8,516	4.9	5.42	10	9	84 00	52 77
Fulton.....	1,733	4.4	4.66	8	4	88 00	34 37
Galena.....	6,454	5.0	3.16	34	16	59 00	34 99
Galesburg.....	11,446	4.1	4.57	22	34	101 00	33 90
Gardner.....	786	5.0	4.07	6	21	61 00	31 58
Gartside.....	103	4.2	3.2	.....	5	62 00	22 80
Jacksonville.....	10,927	3.7	4.08	19	42	90 00	33 18
Joliet.....	11,659	5.5	5.08	26	23	105 00	43 84
Lincoln.....	5,639	4.5	2.75	.....	4	66 00	17 50
Mattoon.....	5,742	4.4	4.05	18	18	85 00	31 23
Moline.....	7,805	3.8	3.75	48	90	92 00	37 77
Mt. Pulaski.....	1,127	4.5	4.5	.....	2	76 00	22 00
Pekin.....	5,998	4.0	3.48	8	21	60 00	21 88
Peoria.....	29,219	4.5	3.53	43	121	87 00	25 36
Peoria County.....	26,100	5.0	3.72	4	18	71 00	18 48
Pontiac.....	2,243	4.4	5.5	26	12	77 00	43 38
Quincy.....	27,275	5.0	4.35	1	13	109 00	40 73
Rentchler.....	148	3.5	2.	.....	2	43 00	.....
Rock Falls.....	894	5.7	4.5	2	2	84 00	43 75
Rock Island.....	11,661	4.7	3.89	34	64	83 00	30 71
Springfield.....	19,746	5.1	4.06	17	16	130 00	36 90
Sterling.....	5,089	5.2	5.68	27	24	99 00	45 71
Streator.....	5,158	4.1	3.76	33	17	78 00	12 57
Sumnerfield.....	751	9.0	3.	.....	1	48 00	25 00
Urbana.....	2,943	5.1	4.52	13	4	78 00	35 70
Totals.....	.....	.....	.....	730	1,399	.....	.....
Averages.....	.....	4.62	4.07	.....	.....	\$96 83	\$31 22

An inspection of these figures shows that for the State at large an average of \$96.83 is paid per annum for a house containing an average of 4.07 rooms. In even figures this may be stated as \$8 a month for a house of four rooms; exactly computed it gives us, as the average rental paid by workingmen in Illinois, \$1.98 per month per room. In the manufacturing towns of Massachusetts the average rental per room is \$2.86 per month.

But an average for the State is of small interest as compared with that of specific localities.

Examined with this object the table gives us as the highest average rental, \$134 per annum. paid in Chicago,—the average size of tenements being 3.92 rooms, or somewhat less than the general average. The smallest rental and the smallest houses are reported from Equality, a small mining village in the southern extremity of the State. Here we have an average rental of \$3 a month for miners' cottages averaging less than three rooms each. In order that the relative size of tenements in different places may receive due consideration in estimating the comparative cost of house rent, we may compute the specific amount paid in each place per room, and thus obtain a basis on which to fix the average rental for houses of any size. In exact figures we find the monthly rental paid by the industrial classes in Chicago is at the rate of \$2.85 per room, in East St. Louis it is \$2.84, in Springfield \$2.66, in Quincy \$2.09, in Peoria \$2.05, in Aurora \$1.92, in Elgin \$1.88, in Galesburg \$1.84, in Joliet \$1.72, and the specific figures for other places may readily be computed from the table. Similarly the relation between the size of the family and the size of the house may be arrived at, showing the number of persons to each room, and the cost of rent per capita.

In regard to the annual cost of the fuel necessary to make these houses inhabitable, we find the amounts varying from about \$12 to \$50 per family, with an average for the State of \$31.22. In general the increased cost of fuel will be found to correspond with the increased distance from the coal fields. The lowest amounts reported are from the families of coal miners, and the larger amounts are found at points in the northern part of the State where the cost of coal is augmented by transportation charges. Fuel in Chicago is lower than at many interior points not more remote from the source of supply, because of the greater competition in that market. In examining the figures referring to the cost of fuel, reference should be had to the differences in latitude, which are very marked in this State, and also to the average size of houses as shown in another column, in order to arrive at the just proportions of the fuel account.

The facts shown here in regard to the number of house-owners among the workingmen whom we have visited are worthy of special note. Out of 2,129 families we have found 730, or 34+ per cent., sheltered by their own roofs. We find, however, rather more than

the usual disparity between different localities in this regard. In Chicago for instance there are only 25 out of 354 families, or 7 per cent., living in homes of their own, and in twelve mining villages only 27 out of 159, or 17 per cent., who own their houses. On the other hand, in twelve of our principal towns represented by 659 families, over one-half, or 56 per cent., are free-holders, and in nineteen towns represented by 1,155 families 48+ per cent. are independent of the landlord and have possessions in houses and land. These nineteen places are pretty evenly distributed over the State and embrace many of our most thriving industrial communities. We make the following tabulation of these places, showing, in connection with the facts in regard to house ownership, the average earnings and expenses reported for the same places:

PLACES.	Whole number of families..	No. of house- owners.....	No. of renters.	Average annual earnings.....	Average annual expenses.....
Aurora	93	41	52	\$596	\$539
Bloomington	72	52	20	464	384
Centralia.....	49	24	25	595	529
Champaign.....	98	51	47	597	497
Danville.....	131	55	76	504	326
Elgin.....	16	9	7	623	514
Freeport.....	19	10	9	618	562
Galena	50	34	16	486	407
Galesburg	56	22	34	570	527
Jacksonville.....	61	19	42	659	516
Joliet.....	49	26	23	671	578
Mattoon.....	36	18	18	696	525
Moline.....	138	48	90	528	476
Pontiac	38	26	12	726	581
Rock Island.....	98	31	64	530	481
Springfield.....	33	17	16	760	658
Sterling	51	27	24	584	474
Streator.....	50	33	17	567	574
Urbana.....	17	13	4	797	602
Totals.....	1,155	559	596	\$623	\$511

In Peoria, the second city in the State in population, 35 per cent. are reported as owning their homes.

As compared with other coal mining communities the reports from Streator are noticeable as affording a very gratifying contrast in this respect. Whereas in twelve mining towns in our list there are only 17 per cent. owning houses, we find in Streator that 66 per cent. live in houses of their own.

Our next table on the subject of rent and fuel consists of a trade classification designed to show the amounts expended for these necessities by those engaged in different occupations. While this is not of such vital interest or significance as the showing in regard to localities, the tabulation is valuable as supplementing the preceding table, and as confirming our general averages. This table also gives the size of families, the size of the houses they live in, the annual rental and cost of fuel for the same, and the number in each occupation who own their homes. To economize space, we omit such occupations as do not have a representation of at least five families, and thus reduce the number of occupations about half, while presenting all the more common and representative trades.

TABLE II.—*Showing the average cost of Rent and Fuel to Workers in the different Occupations, with average size of Families and of Tenements.*

OCCUPATIONS.	No. of families.	Average size of families.....	Av. No. rooms occupied per family.....	No. who own their homes..	No. who rent...	ANNUAL RENTAL.	ANNUAL COST OF FUEL.
						Per family.	Per family.
Bakers.....	14	4.79	3.43	2	12	\$98 00	\$24 21
Barbers.....	18	3.61	4 16	2	16	98 40	36 33
Baggagemen.....	5	4.2	3.8	2	3	136 00	35 40
Boiler makers.....	9	5.77	5.11	5	4	93 00	42 89
Blacksmiths.....	75	4.66	4.62	32	43	107 60	36 46
Blacksmith helpers.....	7	4.45	4.14	6	1	60 00	36 30
Brakeman.....	5	4 4	4.2	.....	5	85 50	36 00
Bookkeepers.....	5	3.8	5.2	5	.....	.....	54 60
Brass workers.....	6	4.16	3 66	1	5	102 00	29 00
Brewers.....	5	6	3.2	1	4	93 00	19 00
Brick layers.....	46	4 26	4 54	26	20	118 50	40 59
Brick makers.....	5	4.2	4.6	2	3	80 00	30 00
Bridge builders.....	5	4.2	4 8	.....	5	60 00	33 40
Butchers.....	27	5.07	3.92	9	18	108 66	27 74
Cabinet makers.....	15	3.87	5 53	9	6	94 00	40 20
Car builders.....	5	5 6	5.4	.....	5	129 60	55 20
Car inspectors.....	6	4.16	3.66	1	5	108 00	22 66
Car repairers.....	8	4.62	4.62	5	3	134 00	35 00
Carpenters.....	111	4.43	4.75	50	61	99 24	36 30
Carriage makers.....	5	5	4	3	2	123 00	33 80
Carriage painters.....	7	3	3 57	2	5	105 60	34 57
Cigar makers.....	79	3.83	3.67	11	68	105 23	30 16
Clerks.....	46	3.98	4.78	20	26	119 61	38 30
Coal miners.....	232	4 98	3.41	70	162	63 63	19 86
Coopers.....	22	5.23	3 95	3	19	98 00	30 86
Curriers.....	7	4.71	3 29	1	6	100 00	38 71
Engineers (locomotive).....	12	4.42	6	4	8	168 00	46 66
Engineers (stationary).....	30	4.63	4.3	12	18	93 94	32 33
Express drivers.....	7	6	4 57	1	6	136 00	41 57
Firemen (locomotive).....	16	4 06	4 81	4	12	114 50	46 16
Firemen (stationary).....	9	5.55	3.88	1	8	81 25	22 55
Foremen.....	15	5 13	6.13	10	5	238 80	51 00
Harness makers.....	31	3.87	4.23	7	24	119 00	33 90
Iron and steel workers.....	13	5.38	5.92	8	5	96 60	45 77
Laborers.....	397	4.57	3.48	136	261	75 14	27 12
Laborers (railroad).....	16	5 31	2.62	1	15	95 47	25 69
Laborers (coal mine).....	19	4.42	3.63	7	12	64 00	17 53
Lumber handlers.....	7	5	3.43	.....	7	88 57	29 29
Machinists.....	35	4.57	4.14	11	24	103 28	31 86
Machinists (railroad).....	7	5 29	4.86	4	3	122 00	26 14
Malsters.....	5	3.8	3	1	4	81 00	23 60
Marble workers.....	17	4.29	3.65	.....	17	85 76	29 82

Table II.—Continued.

OCCUPATIONS.	No. of families.	Average size of families.....	Av. No. rooms occupied per family.....	No. who own their homes..	No. who rent...	ANNUAL RENTAL.	ANNUAL COST OF FUEL.
						Per family.	Per family.
Millers	16	3.94	4	3	13	\$120 00	\$30 31
Moulders	49	4.31	4.41	11	38	120 16	37 20
Nailers.....	7	4.43	5.71	2	5	162 00	35 57
Painters	62	4.19	4.2	19	43	103 00	37 52
Paper hangers.....	6	6.5	4.5	5	1	84 00	32 66
Pattern makers	9	4.11	4.89	6	3	68 00	48 78
Pit bosses.....	6	5.16	5.4	.....	5	68 00	25 00
Plasterers	23	4.73	4.87	8	15	128 66	32 43
Plow-factory men.....	7	5.43	5.43	5	2	110 00	35 71
Plumbers.....	10	3	3.14	2	8	81 00	29 43
Printers	26	3.81	4.31	7	19	139 57	39 38
Quarrymen.....	5	6.6	4	1	4	81 00	32 60
Rollers	5	5.4	4.4	1	4	144 00	46 00
Rolling mill hands.....	5	5.4	5.2	3	2	126 00	48 80
Sawyers	8	7	3.87	3	5	117 60	43 75
Section bosses.....	5	6.2	4.4	2	3	96 00	29 00
Section men	13	4.65	2.99	5	8	60 00	22 00
Shoemakers	32	5.41	4.66	19	13	106 77	38 31
Stone masons.....	19	4.53	4.76	13	6	106 00	31 68
Stone cutters	28	4.64	4.14	7	21	96 00	29 18
Street-car conductors.....	10	6.7	4.1	.....	10	146 40	48 20
Street-car drivers	11	5	4.18	3	8	141 75	32 73
Tailors	16	5.6	5.5	10	6	119 00	44 69
Teamsters	66	4.23	3.3	19	47	81 49	25 52
Tinners	21	5	4.9	11	10	100 20	25 14
Trackmen.....	6	5	4.66	2	4	58 50	26 33
Trunk makers	5	4.6	3.2	.....	5	124 80	31 00
Upholsterers.....	9	4.66	4	2	7	88 13	20 00
Wagon makers	12	4.58	5.58	5	7	94 29	34 00
Watchmen	7	4.43	4	3	4	169 00	33 00
Wood machinists.....	20	3.85	4.35	4	16	135 62	49 65
Wood workers	17	5.24	4.71	8	9	124 22	41 65
Wipers	5	4.8	2.8	3	2	72 00	19 80
Totals.....	1,957	.....	.....	668	1,289	.....	.....
Averages .....	.....	4.64	4.3	.....	.....	\$95 12	\$31 55

Here are 1,957 families, in 75 occupations, the average number to each family being 4.64 persons, and the average number of rooms being 4.3 per family. These families pay an average rental for their four and one-third rooms of \$95.12 per annum, and expend for fuel to make them comfortable and to cook their food an average of \$31.55 per annum, which averages are substantially the same as those deduced in Table I.

In this consideration of expenses in different occupations it is to be expected that they will bear a very close relation to the amount of the annual earnings in the respective classes, and we are accordingly not surprised to find the foremen, as a class, paying the largest rental—\$19 a month—and occupying houses of six or more rooms, while coal miners pay only about \$5 a month and live in houses having little more than three rooms. The nature of the employment, however, will not afford any general index to the character of the dwellings occupied or the amounts paid for rent. These

are matters largely governed by circumstances outside of occupation, except as the latter regulates the amount of income. By reference to former tables the correspondence between the earnings of various classes and the size and cost of their houses can readily be traced.

In the matter of the average cost of fuel to workingmen of different trades, the diversity in the amounts will be found to follow the average size of houses rather than the nature of the employment, though coal miners, and perhaps some others whose occupations may involve cheap fuel, are exceptions. We still have the same general average—\$31.55—for all classes, with the lowest \$17.53 for laborers about mines.

The separation, however, in this classification of those who own homes from those who do not, affords a new point of view from which to observe the facts on this important subject. We find the same percentage of house-owners obtains in this partial list, consisting of 1,957 families, as in the whole number—viz.: 34+ per cent.; but that in some occupations the percentage is noticeably greater. Among the trades most largely represented we have blacksmiths, bricklayers, carpenters, shoemakers, stone masons, tailors and tanners, to the number of 327 families, 50 per cent. of whom are house-owners. Coal miners show 30 per cent. thus provided for, and laborers 33 per cent., while some of the trades showing the smallest number of property holders are bakers, barbers, cigar makers, coopers, curriers, firemen, marble workers, moulders, printers, stone cutters, street-car men and teamsters. These classes are represented by 372 families, and only 19 per cent. of them live in houses of their own.

The foregoing constitutes a sufficiently close consideration of these two items of expense—rent and fuel—to the average workingman, and develops the fact that the average outlay for the former is \$96.83 and for the latter \$31.22 per annum. These results are obtained from the specific figures given by 1,699 families who pay rent and by 2,129 who buy fuel. As will be seen later, the house rent constitutes 17.42 per cent. of the entire cost of living, and the fuel 5.63 per cent., the two making 22.68 per cent. of the whole expense.

SUBSISTENCE.

Under the general term subsistence we include meat and groceries, the latter embracing such minor articles of domestic use as are usually found in grocery stores, though not strictly food supplies. In our returns there are some which give definite and separate amounts for meat and for groceries, and others which give only the

whole amount expended for both. It is made necessary, therefore, to form two classifications in order to arrive at the true average for each of the two and for both. In the following table will be found, first, the number of families in each occupation, then the number who report separate amounts for meat and groceries, with the respective amounts for each, and finally the number who report both items under one sum and the sum so given. We thus arrive at the average for each as reported separately and the average for both as reported in one amount, and from these obtain a definite average confirmed by two computations.

TABLE III—*Showing the average amounts expended for Meat and for Groceries by families in the different Occupations.*

OCCUPATIONS.	Whole number of families.....	No. who report specific sums for both meat and groceries..	Whole amount paid for meat...	Cost of meat per family.....	Whole amount paid for groceries.....	Cost of groceries per family.....	No. who report cost of meat and groceries in one amount.....	Whole amount paid for meat and groceries..	Cost of meat and groceries per family.....
Bakers	14	5	\$300	\$60	\$650	\$130	9	\$1,890	\$210
Barbers	18	15	1,357	90	2,758	183	3	630	210
Baggagemen	5	4	349	87	647	161	1	168	168
Boiler makers	9	4	360	90	1,040	210	5	1,204	220
Boiler-maker helpers..	1	1	100	100	100	100	1	100	100
Bookbinders.....	2	1	160	160	150	150	1	336	336
Blacksmiths.....	75	52	3,793	78	9,650	185	23	5,405	237
Blacksmith helpers...	7	3	235	78	500	166	4	832	208
Brakemen.....	5	5	218	43	1,009	201	1	201	201
Bookkeepers.....	5	5	350	70	970	194	1	194	194
Brass workers.....	6	5	278	55	720	144	1	200	200
Brewers	5	3	359	119	550	183	2	220	110
Brick layers.....	46	36	3,255	90	7,512	208	10	2,214	221
Brick makers.....	5	4	220	55	564	141	1	260	260
Bridge builders.....	5	4	315	79	850	212	1	175	175
Bridge tenders.....	2	1	109	109	216	216	1	225	225
Broom makers.....	3	2	85	42	220	110	1	140	140
Butchers.....	27	9	645	71	1,220	135	18	3,336	185
Cabinet makers	15	11	675	61	1,591	144	4	800	200
Cager.....	1	1	96	96	300	300	1	300	300
Calceiminer	1	1	25	25	210	210	1	210	210
Caller.....	1	1	84	84	240	240	1	240	240
Car builders.....	5	3	192	64	340	113	2	270	135
Car inspectors.....	6	4	275	68	654	163	2	528	264
Car painters.....	2	1	30	30	140	140	1	170	170
Car repairers.....	8	6	403	67	1,169	195	2	416	208
Carpenters.....	111	89	6,266	70	15,138	170	22	5,203	236
Carriage makers.....	5	1	50	50	200	200	4	1,204	323
" ironers.....	2	2	455	227	455	455	2	455	227
" painters.....	7	3	265	88	453	151	4	906	226
" trimmers.....	4	3	185	61	445	148	1	200	200
Catcher (foundry).....	1	1	90	90	190	190	1	190	190
Cigar makers.....	79	30	2,096	69	4,498	149	49	10,267	209
" packers.....	2	2	317	173	450	225	2	450	225
Clerks	46	33	2,013	61	5,460	165	13	3,816	293
Coal miners	232	219	14,773	71	34,902	159	13	3,309	254
Conductors (freight) ..	2	2	240	120	325	162	2	325	162
Coopers	22	20	1,510	75	2,508	125	2	659	329
Curriers.....	7	5	520	104	1,170	234	2	625	312
Ditchers.....	3	2	83	41	110	55	1	200	200
Draughtsmen.....	3	3	675	225	675	675	3	675	225
Electrician	1	1	220	220	220	220	1	220	220
Engineers (locomotiv) ..	12	10	863	86	2,410	244	2	754	379
" (stationary).....	30	25	2,176	87	4,726	189	5	1,227	245
Express agent.....	1	1	96	96	240	240	1	240	240
Express drivers.....	7	6	709	118	974	162	1	175	175
Farm hands.....	2	2	133	66	231	115	2	231	115

Table III.—Continued.

OCCUPATIONS.	Whole number of families.....	No. who report specific sums for both meat and groceries..	Whole amount paid for meat.	Cost of meat per family.....	Whole amount paid for groceries.....	Cost of groceries per family.....	No. who report cost of meat and groceries in one amount.....	Whole amount paid for meat and groceries.	Cost of meat and groceries per family.....
Firemen (locomotive).	16	16	\$1,066	\$66	\$2,797	\$175			
Firemen (stationary)..	9	8	540	67	1,209	151	1	\$2.46	\$186
Fi-herman.....	1	1	50	50	260	260			
Flagmen.....	4	4	219	54	544	136			
Flour packers.....	3	3	217	72	332	110			
Foremen.....	15	11	1,114	101	3,164	287	4	965	241
Furnace men.....	4	4	320	80	800	200			
Gardener.....	1	1	15	15	300	300			
Gilder.....	1	1	120	120	360	360			
Glass blowers.....	3	3	285	95	380	127			
Grinders.....	4	4	280	70	675	168			
Harness makers.....	31	20	1,513	75	3,649	182	11	2,210	201
Heaters (bar mill).....	4	4	521	130	1,120	230			
(foundry).....	1	1	190	190	360	360			
Helpers in shop.....	3	3	185	61	375	125			
Hod carriers.....	3	1	35	35	110	110	2	375	187
Horse-shoe maker....	1	1	75	75	330	330			
Horse shoer.....	1						1	300	300
Hostlers.....	3						3	508	169
Iron and steel workers	13	12	1,061	88	2,265	188	1	190	190
Janitors.....	4	3	170	57	500	166	1	160	160
Laborers.....	397	308	17,790	57	42,296	137	89	16,059	180
(R. R.).....	16	7	509	72	1,322	188	9	1,177	131
(coal mine)....	19	17	1,206	71	2,712	159	2	765	382
Lard renderer.....	1	1	80	80	175	175			
Lather.....	1						1	250	250
Laundrymen.....	2						2	275	137
Lead miners.....	2	2	90	45	300	150			
Lumber handlers.....	7	3	325	108	496	165	4	770	192
Machinists.....	35	31	2,354	76	5,590	180	4	910	227
(R. R.).....	7	5	430	86	900	180	2	660	330
Machine miners.....	4	4	317	79	665	166			
Maltsters.....	5	3	132	44	320	106	2	475	237
Marble workers.....	17	12	954	79	2,214	184	5	1,284	257
Master mechanics.....	2	1	216	216	300	300	1	540	540
Matrass maker.....	1						1	200	200
Millers.....	16	14	1,036	79	2,601	185	2	440	220
Millwrights.....	2	1	75	75	175	175	1	156	156
Moulders.....	49	40	3,207	80	8,093	202	9	1,772	185
Monument setter.....	1	1	50	50	150	150			
Mule drivers.....	3	3	208	69	500	166			
Nailers.....	7	7	852	121	1,548	221			
Nail-plate shearer....	1	1	80	80	180	180			
Organ builders.....	2	2	115	57	520	260			
Omnibus driver.....	1	1	55	55	150	150			
Painter.....	62	51	3,257	63	8,696	170	11	1,836	167
Paper carriers.....	2	1	30	30	120	120	1	110	110
Paper hangers.....	6	5	450	90	1,125	225	1	342	342
Paper maker.....	1	1	60	60	100	100			
Pattern makers.....	9	8	676	84	1,740	217	1	365	365
Piano makers.....	2	2	125	62	325	162			
Picture-frame makers	2	1	26	26	150	150	1	200	200
Pit bosses.....	6	6	430	71	1,333	222			
Pit sinkers.....	2	2	134	27	300	150			
Pit-top men.....	2	2	124	62	380	190			
Plasterers.....	23	16	1,213	75	2,967	185	7	2,175	310
Plow factory men.....	7	7	432	61	1,475	210			
Plumbers.....	10	8	640	80	1,470	183	2	547	273
Potters.....	4	4	258	64	625	156			
Pressmen.....	2						2	384	192
Printers.....	26	16	1,502	93	2,926	182	10	2,346	236
Prison guard.....	1	1	25	25	120	120			
Puddlers.....	4	3	310	103	620	206	1	640	640
Puddlers' helper.....	1	1	182	182	180	180			
Quarrymen.....	5	5	380	76	995	199			
Rag sorter (paper mill)	1						1	200	200
Refiner (gas).....	1	1	10	10	144	144			
River pilot.....	1						1	180	180
Rollers.....	5	5	650	130	1,225	245			
Rolling-mill hands....	5	4	300	75	1,150	287	1	325	325
Rougher.....	2	2	250	125	400	200			

Table III.—Continued.

OCCUPATIONS.	Whole number of families.....	No. who report specific sums for both meat and groceries..	Whole amount paid for meat...	Cost of meat per family.....	Whole amount paid for groceries.....	Cost of groceries per family.....	No. who report cost of meat and groceries in one amount.....	Whole amount paid for meat and groceries..	Cost of meat and groceries per family.....
Salt maker.....	1	1	\$20	\$20	\$50	\$50			
Saw filer.....	1	1	60	60	225	225			
Sawyers.....	8	7	576	82	1,431	204	1	\$250	\$250
Seamen.....	2	2	74	37	150	75			
Section bosses.....	5	4	420	105	925	231	1	230	230
Section men.....	13	13	600	46	1,399	107			
Sheet-iron workers...	1	1	50	50	240	240			
Shoemakers.....	32	23	1,497	65	3,377	146	9	2,023	225
Silver plater.....	1	1	30	30	125	125			
Shooter (coal).....	1	1	90	90	190	190			
Sodawater maker.....	1	1	75	75	150	150			
Spinner.....	1	1	100	100	240	240			
Stair builder.....	1						1	156	156
Station agents.....	4	3	193	64	439	146	1	191	191
Stone masons.....	19	17	1,173	69	3,172	186	2	491	245
Stone cutters.....	28	19	1,090	57	3,342	175	9	2,677	297
Stove mounters.....	2						2	384	192
Street-car conductors...	10	1	70	70	190	190	9	2,553	283
Street-car drivers.....	11	3	309	103	350	113	8	2,240	280
Switchmen.....	3	2	210	105	380	190	1	150	150
Tailors.....	16	9	765	85	2,021	224	7	1,820	260
Telegraphists.....	3	1	45	45	150	150	2	410	205
Teamsters.....	66	44	2,783	63	6,256	142	22	4,291	195
Tile makers.....	3	2	95	47	200	145	1	260	260
Tinners.....	21	16	1,231	77	2,891	180	5	1,219	249
Toy maker.....	1						1	200	200
Track layers.....	6	5	339	67	1,094	219	1	133	138
Train dispatcher.....	1	1	110	110	300	300			
Trunk makers.....	5						5	1,400	280
Upholsterers.....	9	1	96	96	264	264	8	1,787	223
Wagon makers.....	12	11	693	63	1,620	147	1	210	210
Walter.....	1						1	100	100
Watch factory hands...	3	3	182	60	828	276			
Watch makers.....	4	4	215	53	504	126			
Watchmen.....	7	3	255	85	494	164	4	739	184
Weaver (carpet).....	1	1	50	50	100	100			
Welgher.....	2	2	135	67	278	139			
Well digger.....	1	1	100	100	124	124			
Wood machinists.....	20	17	1,782	104	3,189	187	3	955	318
Wood workers.....	17	17	1,450	85	2,851	167			
Wipers (locomotive)...	5	4	195	48	770	192	1	160	160
Wire-fence maker.....	1	1	60	60	155	155			
Yardmasters.....	3	2	161	80	800	400	1	156	156
Yardmen.....	2						2	310	155
Totals.....	2,128	1,603	\$113,333		\$269,035		525	\$115,490	
Averages.....				\$70 70		\$167 88			\$219 98
Averages for 2,128 families.....				67 90		161 37			

This table gives us 1,603 families who expend annually \$113,333 for meat, and \$269,035 for groceries, or \$70.70 per family for the former, and \$167.88 per family for the latter, the cost of meat being 29.6 per cent of the cost of both. We also have 525 families who report an aggregate sum of \$115,490 as expended during the year for both meat and groceries, or \$219.98 per family. Deducting 29.6 per cent. of this amount from the whole, we have \$65.11 as the average for

meat for this group, and \$154.87 as the average for groceries. From these two sets of averages we find the mean to be \$67.90 per family for meat and \$161.37 per family for groceries, or \$229.27 for both, as the net experience of 2,128 families, under miscellaneous conditions.

The occasion for the discrepancies shown here in the amounts paid for subsistence by those engaged in different occupations will hardly be found in the nature of the employment so much as in other conditions. Primarily this amount will be regulated by the average remuneration afforded by different trades. Laborers for instance expend \$194 out of average earnings of \$414, or 47 per cent. for subsistence; coal miners \$230, out of \$471, or 49 per cent.; cigar makers \$218 out of \$577, or 37 per cent.; while foremen expend \$383 out of \$1,167, or 33 per cent.; master mechanics \$516 out of \$2,076, or 25 per cent., etc. The differences in these and similar cases sufficiently explain themselves as the manifest results of diversity of income, which must govern ultimately in all expenses. But in many trades affording average incomes, wide differences will be observed in the item of subsistence, for which reasons must be found outside the nature of the occupation, in the size and habits of the family, or in the relative prices of supplies in different places.

A tabulation follows designed to show the relative amounts expended for subsistence in different towns without regard to specific occupations. This table will also be found to embrace other features essential to a full comprehension of the averages given, such as the size of the town, the size of the family, the number of families upon which the averages are based, and the relation of the amount expended for food to that expended for all purposes.

TABLE IV.—*Showing the average expenditures for Meat and for Groceries, in the various Cities and Towns of the State.*

PLACES.	Population....	Average size of families...	Number of families.....	Cost of meat per family....	Cost of groceries per family	Cost of both per family....	Total family expenditures.	Percentage for subsistence..
Alma	165	4.4	5	\$77	\$184	\$181	\$383	46
Alton	8,973	5.8	49	68	171	239	461	52
Aurora	11,875	3.9	93	79	175	254	539	47
Bartonville	450	6.4	13	41	120	161	424	40
Belleville.....	10,682	4.8	63	82	143	225	521	43
Bloomington	17,184	4.1	72	64	156	220	384	58
Carlinville	3,118	5.4	4	62	168	230	368	62
Caseyville.....	900	7.5	4	72	145	217	451	43
Centralia.....	3,623	3.9	39	76	170	246	529	46
Champaign.....	5,106	4.3	15	75	166	241	497	48
Chicago.....	503,305	4.8	156	91	174	268	612	44
Coal City.....	568	5.2	14	85	198	283	481	60

Table IV.—Continued.

PLACES.	Population	Average size of families	Number of families	Cost of meat per family	Cost of groceries per family	Cost of both per family	Total family expenditures	Percentage for subsistence
Collinsville.....	2,839	4.7	29	\$67	\$112	\$179	\$377	47
Danville.....	7,735	4.5	102	82	148	230	326	70
DuQuoin.....	2,808	4	16	44	96	140	306	40
Eas. St. Louis.....	10,000	4.3	87	109	195	255	626	45
Elgin.....	8,789	3.9	14	70	175	245	511	45
Equality.....	500	4.4	31	67	73	190	316	38
Freeport.....	8,516	4.9	19	77	121	194	502	39
Fulton.....	1,733	4.4	31	57	73	190	491	28
Galena.....	6,454	5	46	50	146	190	407	47
Galesburg.....	11,446	4.1	49	40	120	160	527	30
Gardner.....	786	5	24	60	154	222	451	49
Gartside.....	103	4.2	5	77	116	193	415	46
Jacksonville.....	30,927	3.7	1	54	156	210	516	40
Joliet.....	11,659	5.5	46	72	253	325	678	56
Lincoln.....	5,699	4.6	4	71	225	296	547	54
Mattoon.....	5,742	4.4	29	91	176	270	527	51
Moine.....	7,805	3.8	12	58	175	233	476	50
Mt. Pulaski.....	1,127	4.5	3	68	250	316	714	44
Pekin.....	5,998	4	15	61	190	256	386	66
Peoria.....	29,319	4.5	88	65	131	186	443	42
Peoria County.....		5	22	40	132	172	412	41
Pontiac.....	2,243	4.4	33	67	188	254	531	48
Quincy.....	27,275	5	10	50	155	205	520	39
Reutcher.....	150	3.5	2	83	150	231	550	42
Rock Falls.....	894	5.7	4	76	175	250	477	52
Rock Island.....	11,661	4.7	70	76	188	244	481	50
Springfield.....	19,746	5.1	26	81	238	322	658	49
Sterling.....	5,069	5.2	51	72	145	217	474	46
Streator.....	5,118	4.1	48	68	240	308	574	53
Summerfield.....	751	9	1	50	94	144	294	54
Urbana.....	2,913	5.1	17	84	194	282	602	46
Averages.....		4.78	1,568	\$67.70	\$160	\$227.70	\$483	47

Selecting those from each locality who give definite amounts for cost of both meat and groceries, we obtain in all the experience of 1,568 families in 43 places. These families average 4.78 persons each and expend an average sum of \$67.70 for meat, and \$160 for groceries, or \$227.70 for both, out of an average total expenditure of \$483.

These results, it will be observed, are practically the same as those before deduced, while opportunities are afforded in this table for analyzing the conditions under which the given amounts are expended, and thus accounting in a large measure for the differences which appear. As to each case the whole cost of living is brought into comparison with the cost of food supplies proper, showing that the latter is somewhat less than half the total expenditure,—the amount for groceries being about twice that for meat. Exceptional amounts may generally be accounted for by a consideration of the

size of the family or of the town, the comprehensiveness of the average, or the amount of income from which these expenses are defrayed, as indicated by the total expenditure.

By reference to a subsequent table, giving the prevailing prices of commodities, in 34 different towns, an estimate may readily be made of the relative amounts of each which the sums here given represent, and of the extent to which the prices paid affect the differences in the amounts reported for subsistence.

CLOTHING.

Having considered the amounts expended by workmen for Shelter, as represented by rent and fuel, and for Subsistence, as represented by meat and groceries, we next come to the item of Clothing, including boots and shoes and dry goods, which we analyze in a similar manner to the foregoing, showing the cost of each, and of the three aggregated, both for occupations and places. Our first table embraces the experience of 1,529 families, who give the desired data in detail from which we tabulate the averages shown. The remaining 600 families report a lump sum for the three items and consequently do not appear in this table.

TABLE V.—*Showing the average cost of Clothing, Boots and Shoes and Dry Goods, in the different Occupations.*

OCCUPATIONS.	No. who report specific sums for clothing, boots, shoes and dry goods.	Whole amount paid for clothing, proper.....	Cost of clothing per family.....	Whole amount paid for boots and shoes.....	Cost of boots and shoes per family.....	Whole amount paid for dry goods.....	Cost of dry goods per family.....	Cost of the three items per family.....
Bakers.....	14	\$340	\$68	\$110	\$22	\$119	\$24	\$114
Barbers.....	18	715	55	330	25	641	49	129
Baggagemen.....	4	175	43	114	28	161	40	111
Boiler makers.....	5	345	69	203	40	440	88	197
Bookbinders.....	7	100	100	30	30	70	70	200
Blacksmiths.....	40	3,255	66	1,354	27	2,007	41	134
helpers.....	4	190	47	79	19	46	11	77
Brakemen.....	5	185	46	78	19	158	39	104
Book-keepers.....	3	330	110	75	27	275	91	228
Brass workers.....	5	315	75	126	25	207	41	141
Brewers.....	3	155	51	115	38	76	25	114
Bricklayers.....	46	2,542	70	1,084	30	1,638	45	145
Brickmakers.....	5	180	60	102	34	156	51	145
Bridge builders.....	5	470	94	190	26	198	39	159
tenders.....	2	100	50	65	32	85	42	124
Broom makers.....	3	80	80	20	20	45	45	145
Burnisher.....	1	60	60	23	23	40	40	123
Butchers.....	27	535	48	298	27	454	41	116
Cabinet makers.....	15	435	48	202	22	350	39	109
Calceiminer.....	1	75	75	15	15	25	25	115

Table V.—Continued.

OCCUPATIONS.	No. who report specific sums for clothing, shoes and dry goods.	Whole amount paid for clothing, proper.	Cost of clothing per family.	Whole amount paid for boots and shoes.	Cost of boots and shoes per family.	Whole amount paid for dry goods.	Cost of dry goods per family.	Cost of the three items per family.
Callers.....	1	\$20	\$20	\$25	\$25	\$50	\$50	\$95
Car builders.....	4	150	37	104	26	87	22	85
Car inspectors.....	6	170	42	70	17	170	42	101
Car painters.....	2	90	90	30	30	80	80	200
Car repairers.....	8	341	42	187	23	223	28	98
Carpenters.....	111	4,775	55	3,202	37	3,311	38	1,800
Carriage makers.....	5	193	48	90	22	150	37	107
" painters.....	7	180	60	85	18	50	23	101
" trimmers.....	4	90	45	50	25	55	27	97
Catcher.....	1	50	50	35	35	75	75	160
Cigar makers.....	79	2,655	53	974	23	1,607	38	124
" packers.....	2	105	67	90	45	65	32	144
Clerks.....	46	2,185	75	948	32	1,755	67	174
Coal miners.....	232	9,384	50	4,783	25	5,940	32	107
Coopers.....	22	700	44	417	23	464	25	92
Curriers.....	7	478	79	150	25	263	44	148
Ditchers.....	3	19	9	26	13	34	17	39
Engineers (locomotive).....	12	798	70	388	38	966	96	213
(stationary).....	30	1,240	55	656	28	1,006	47	190
Express agent.....	1	25	25	20	20	50	50	95
drivers.....	7	500	83	150	23	365	61	169
Farm hands.....	2	75	75	25	25	20	20	120
Firemen (locomotive).....	16	1,080	64	363	24	503	31	123
(stationary).....	9	942	38	229	28	330	41	167
Fisherman.....	1	75	75	30	30	11	11	116
Flagmen.....	4	100	25	47	11	74	18	54
Flour packers.....	3	105	35	46	15	85	28	78
Foreman.....	15	1,145	114	425	42	945	94	250
Furnacemen.....	4	134	33	117	29	134	33	95
Gardener.....	1	25	25	30	30	25	25	80
Glass blowers.....	3	25	68	63	21	63	21	110
Grinders.....	4	310	85	78	19	33	8	112
Harness makers.....	81	1,090	57	446	23	1,016	53	133
Henter (bar mill).....	4	165	41	115	29	250	62	134
Helpers in shop.....	3	130	43	61	21	110	37	101
Hod carriers.....	3	100	100	30	30	40	40	170
Horse-shoe makers.....	1	50	50	15	15	10	10	75
Iron and steel workers.....	13	810	67	428	35	410	34	136
Janitors.....	4	195	65	86	28	116	30	132
Laborers.....	397	13,109	41	6,367	20	7,196	22	85
(R. R.).....	16	10	77	172	43	270	67	187
(coal mine).....	19	376	29	254	19	309	23	71
Lard renderer.....	1	25	25	15	15	30	30	73
Lather.....	1	15	15	19	19	13	13	47
Lumber handlers.....	7	185	40	100	25	145	36	107
Machinists.....	35	1,497	76	770	31	1,110	44	151
(R. R.).....	7	490	122	103	26	260	65	213
Machine miners.....	4	130	32	87	21	120	30	84
Malsters.....	5	190	47	85	21	100	25	93
Marble workers.....	17	550	61	250	27	235	26	114
Master mechanics.....	2	120	120	72	72	30	30	223
Millers.....	16	790	71	314	28	675	61	160
Millwrights.....	2	60	60	35	35	30	30	125
Moulders.....	49	3,206	70	1,170	24	1,645	39	143
Monument setter.....	1	75	75	15	15	7	7	97
Mule drivers.....	3	15	15	40	40	25	25	80
Nailers.....	7	345	73	143	28	365	77	178
Nail-plate shearer.....	1	45	45	15	15	60	60	120
Organ builders.....	2	175	87	50	25	60	30	142
Omnibus drivers.....	1	50	50	15	15	7	7	43
Painters.....	62	2,500	53	1,060	22	1,206	25	100
Paper carriers.....	2	50	50	10	10	15	15	75
Paper hangers.....	6	345	66	85	21	280	75	177
Paper makers.....	1	25	25	30	30	30	30	85
Pattern makers.....	9	583	73	208	33	420	52	158
Piano makers.....	3	50	50	40	40	50	50	140

Table V.—Continued.

OCCUPATIONS.	Whole number of families.....	No. who report specific sums for clothing, boots, shoes and dry goods.....	Whole amount paid for clothing, proper.....	Cost of clothing, per family.....	Whole amount paid for boots and shoes.....	Cost of boots and shoes per family.....	Whole amount paid for dry goods.....	Cost of dry goods per family.....	Cost of the three items per family.....
Picture-frame makers.....	2	1	\$100	\$100	\$25	\$25	\$15	\$15	\$140
Pit bosses.....	6	5	377	75	141	28	328	65	168
Pit sinkers.....	2	2	37	18	44	22	56	28	68
Pit-top men.....	2	1	60	60	24	24	60	60	144
Plasterers.....	23	17	921	54	378	22	580	34	110
Plow-factory men.....	7	7	500	71	184	26	157	22	119
Plumbers.....	10	8	670	83	342	42	203	25	150
Potters.....	4	2	220	110	45	23	45	22	154
Printers.....	26	12	1,205	105	251	21	403	33	159
Prison guard.....	1	1	45	45	23	23	28	28	96
Puddlers.....	4	3	160	53	75	25	175	58	136
Puddlers' helper.....	1	1	75	75	35	35	50	50	160
Quarrymen.....	5	5	190	38	123	24	133	26	88
Rag sorter (paper mill).....	1	1	35	35	10	10	5	5	50
Refiner (gas).....	1	1	40	40	20	20	20	20	80
River pilot.....	1	1	40	40	30	30	25	25	95
Rollers.....	5	5	280	56	155	31	260	52	139
Rolling-mill hands.....	5	4	191	47	115	29	125	31	107
Roughers.....	2	2	85	42	35	17	75	37	96
Salt maker.....	1	1	75	75	12	12	50	50	137
Saw miller.....	1	1	65	65	25	25	6	6	96
Sawyers.....	8	6	445	74	147	24	224	37	135
Seamen.....	2	2	20	10	16	8	25	12	30
Section bosses.....	5	4	250	62	177	44	230	57	163
Section men.....	13	11	324	29	219	22	365	32	83
Shoemakers.....	32	25	1,075	43	519	20	944	35	98
Silver plater.....	1	1	20	20	30	30	25	25	75
Shooter (coal).....	1	1	40	40	30	30	50	50	120
Spinner.....	1	1	40	40	35	35	40	40	115
Station agent.....	4	4	255	63	90	22	155	39	124
Stone masons.....	19	17	838	49	434	25	427	29	99
Stone cutters.....	28	22	1,515	68	621	28	746	33	129
Stove mounters.....	2	1	40	40	15	15	30	30	85
Street-car conductors.....	10	1	25	25	10	10	10	10	45
Street-car drivers.....	11	4	345	86	98	14	250	62	172
Switchmen.....	3	2	125	62	4	2	55	27	91
Tailors.....	16	10	835	8	312	31	479	48	167
Telegraphists.....	3	1	40	40	15	15	100	100	155
Teamsters.....	66	38	1,805	47	1,072	28	1,105	29	104
Tile makers.....	3	3	190	83	77	26	80	27	136
Tinners.....	21	12	510	45	305	25	393	32	103
Trackmen.....	6	5	192	38	171	34	214	42	114
Train dispatcher.....	1	1	75	75	25	25	75	75	175
Upholsterers.....	9	1	35	35	14	14	65	65	114
Wagon makers.....	12	7	437	62	235	32	202	20	123
Watch-factory operatives.....	3	2	80	40	60	30	45	22	92
Watch makers.....	4	3	95	31	68	23	115	38	92
Watchmen.....	7	4	290	72	88	22	95	47	141
Weaver (carpet).....	1	1	25	25	25	25	25	25	75
Weigher.....	2	2	50	25	42	21	59	29	75
Well digger.....	1	1	55	55	25	25	40	40	120
Wood machinists.....	20	18	910	50	353	19	683	37	106
Wood workers.....	17	16	1,120	70	515	32	658	41	143
Wipers (locomotive).....	5	5	165	33	80	16	110	22	71
Wire-fence maker.....	1	1	10	10	15	15	15	15	40
Yardmasters.....	3	2	220	110	85	42	32	16	168
Totals.....	2,094	1,529	\$84,786	.....	\$39,824	.....	\$53,919	.....	\$17,095
Averages.....	.....	.....	.....	\$55 45	.....	\$25 71	.....	\$35 26	\$116 42

We have presented here the experience of 1,529 families in various places and occupations, as to the amounts expended during the year for clothing proper, boots and shoes, and dry goods, which, owing to the near relation of these items to each other, we consider under the general head of Clothing. It is to be expected that among so large a number of families a great diversity will appear in the amounts given, especially in view of the fact that these figures are not given as the average annual amounts expended by each family, but the *real* amounts expended for the year specified, which might be larger or smaller according to the supply on hand at the beginning of the year. This does not, however, weaken our averages because of the large number of families considered, among whom there will be as many who were overstocked at the beginning of the year or were scantily supplied. The deduction of the averages remains with us, and we obtain for these 1,529 families an average expenditure for clothing proper of \$55.55 per family, for boots and shoes \$25.71, and for dry goods \$35.26, or \$116.42 per annum for the three.

We recognize the difficulty of separating the exact amount expended for clothing from that paid for dry goods, the latter entering so largely into the manufacture of garments, especially for women, and we do not attach so much importance to the relative amounts of these two as to the sum of both. It will be seen, in a subsequent comparison with the results obtained by other investigators on this subject, that the amount expended for dry goods as shown here is greater, and that for clothing less in proportion, than those elsewhere obtained.

These amounts expended for personal comfort and adornment correspond in some measure, though by no means closely, with the nature of the employment. Laborers and coal miners for instance expend less for these objects than foremen, master mechanics and others, having much less to spend; but among the trades in general, other causes must be sought for many differences which appear.

The following table will afford some additional opportunities to trace the causes which may affect a variance in the amounts paid for clothing. This is an arrangement showing the expenditure in different towns, regardless of occupation, and shows not only the respective amounts paid, but the size of the town and of the average family, and in connection therewith the entire expenditure of the family and the proportion of it devoted to these objects.

TABLE VI.—*Showing the average expenditures for Clothing, Boots and Shoes and Dry Goods in the various Cities and Towns of the State.*

PLACES.	Population.....	Average size of families.....	Number of families.....	Cost of clothing per family.....	Cost of boots and shoes per family.....	Cost of dry goods per family.....	Total cost of the three items.....	Total expenditures for all purposes.....	Percentage for the three items.....
Alma.....	164	4.4	5	\$35	\$21	\$15	\$71	\$388	18
Alton.....	8,978	5.8	45	39	25	24	88	461	18
Aurora.....	11,875	5.9	91	43	21	47	111	539	20
Bartonville.....	450	6.4	13	83	30	41	154	424	37
Bellville.....	10,482	4.8	43	49	25	31	105	521	20
Bloomington.....	17,144	4.1	66	31	20	31	82	384	21
Carlinville.....	1,180	5.4	3	50	30	74	154	368	40
Caseyville.....	900	7.5	4	35	19	26	81	451	17
Centralia.....	3,624	3.9	46	75	24	60	159	529	30
Champaign.....	5,106	4.3	34	53	23	20	102	477	20
Chicago.....	503,304	4.8	152	68	25	40	134	612	21
Coal City.....	508	5.2	11	23	22	31	76	441	15
Collinsville.....	2,839	4.7	16	33	17	20	70	377	18
Danville.....	735	4.5	85	41	21	24	86	326	26
DuQuoin.....	2,808	4	7	56	29	49	134	366	35
East St. Louis.....	13,000	4.3	83	49	21	51	121	626	19
Elgin.....	8,719	3.9	10	71	37	42	150	544	31
Equality.....	570	4.4	32	35	20	31	86	346	27
Freeport.....	8,516	4.9	19	81	35	39	155	502	30
Fulton.....	1,733	4.4	1	50	25	75	150	491	30
Galena.....	6,154	5	14	52	22	33	107	407	26
Galesburg.....	17,416	4.1	52	99	30	72	201	527	38
Gardner.....	790	5	19	29	39	75	123	451	27
Gartside.....	103	4.2	5	35	17	16	68	415	16
Joliet.....	11,659	5.5	45	46	26	32	104	578	18
Mattoon.....	5,747	4.4	14	72	25	15	113	525	21
Moline.....	7,805	3.8	116	72	19	7	98	476	20
Mt. Pulaski.....	1,127	4.5	1	150	30	50	230	714	32
Pekin.....	5,906	4	12	29	15	24	68	346	17
Peoria.....	29,911	4.5	139	51	31	33	115	444	26
Peoria County.....	26,100	5	22	71	30	39	140	412	33
Pontiac.....	2,243	4.4	34	40	27	65	132	531	24
Quincy.....	27,275	5	11	53	37	53	143	629	26
Rentchler.....	148	3.5	2	44	22	23	89	540	16
Rock Falls.....	804	5.7	4	57	34	30	121	477	25
Rock Island.....	11,617	4.7	72	71	22	16	109	491	22
Springfield.....	19,711	5.1	25	54	29	41	124	658	18
Sterling.....	5,680	5.2	49	54	35	34	124	474	26
Streator.....	5,178	4.1	19	57	29	44	130	574	22
Urbana.....	2,941	5.1	2	90	42	27	159	602	26
Totals.....			1,421	\$2,230	\$1,058	\$1,516	\$4,801	\$19,444	973
Averages.....		4.7		55.44	25.71	35.26	116.42	496	23+

This table gives us 1,421 families with an average of 4.7 persons to each, geographically distributed among forty cities and towns, whose entire living expenses are \$486 per annum, of which \$116.42 is for clothing, boots and shoes and dry goods. The averages deduced in this table vary so slightly from those of the foregoing that the latter are preserved and brought forward, because founded upon rather the larger number of families. Here discrepancies in the amounts given, not otherwise clear, may be frequently explained by reference to the size of the family, the character of the town, or the total amount of the family expenditure.

These two tables sufficiently establish the average amount expended under the general head of Clothing, as well as the proportion of the same to the whole cost of living, and we may proceed to a consideration of the remaining items in the current cost of living.

MISCELLANEOUS.

Under the general head of miscellaneous items of family expenditures, we embrace the amounts paid for books, papers, etc., as indicating the literary or educational tendencies in families; such sums as may be devoted to life-insurance and to maintaining labor organizations; the average cost of the inevitable sickness of families, and finally the sundry other items which enter into the aggregate cost of living. Under each of these heads are given, first by occupations, the number who report expenditures under each of them, and the aggregate amount, and the amount per family so expended.

TABLE VII.—Miscellaneous Expense Items, and the Average Amounts Expended Yearly for Each.

OCCUPATIONS.	BOOKS, PAPERS, ETC.			LIFE INSURANCE.			TRADES UNIONS.			SICKNESS.			SUNDRIES.		
	No of families.....	Whole amount.....	Amount per family .	No. of families.....	Whole amount.....	Amount per family .	No. of families.....	Whole amount.....	Amount per family .	No of families.	Whole amount.....	Amount per family .	No. of families.....	Whole amount.....	Amount per family .
Bakers.....	12	\$73	\$6 08	2	\$60	\$30 00	1	\$25	\$25 00	12	\$240	\$20 00	12	\$316	\$26 33
Barbers	16	106	10 37	4	76	19 00	1	3	3 00	17	304	17 89	16	527	32 93
Baggage-men.....	5	29	5 80	2	56	28 00				2	95	17 50	2	55	27 50
Boiler makers.....	9	84	9 33	2	68	34 00				5	160	36 40	7	308	44 00
Boiler helpers.....										1	100	100 00			
Bookbinders.....	2	14	7 00							2	16	8 00		197	98 50
Black-miths.....	68	635	9 33	11	254	23 09	7	73	10 42	60	1,454	24 23	62	2,091	33 72
Blacksmiths' helpers.....	7	63	9 00							5	114	22 80	7	314	44 85
Brakemen	4	45	11 25	3	55	18 33				3	25	8 33	4	125	31 25
Bookkeepers	5	165	33 00	1	15	15 00				4	65	16 25	4	395	98 75
Brass workers.....	5	37	7 40				2	8	4 00	3	35	11 66	4	80	20 00
Brewers	5	35	7 00	1	30	30 00				4	160	40 00	4	130	32 50
Brick layers	44	463	10 52	4	74	18 50	20	118	5 90	36	1,582	43 94	38	1,611	42 39
Brick makers.....	2	15	7 50				1	3	3 00	4	84	21 00	3	70	23 33
Bridge builders.....	4	50	12 50	1	8	8 00				3	190	63 33	5	140	28 00
Bridge tenders.....	2	27	13 50							1	25	25 00	1	50	50 00
Broom makers	3	16	5 33	1	20	20 00				1	10	10 00	1	25	25 00
Burnisher.....	1	5	5 00							1	20	20 00	1	75	75 00
Butchers.....	18	129	7 16	2	55	27 50	2	12	6 00	22	505	22 90	24	1,317	54 87
Cabinet makers.....	15	123	8 20	4	76	19 00	2	22	11 00	11	241	21 90	15	730	48 68
Cager.....	1	12	12 00	1	6	6 00	1	8	8 00	1	45	45 00	1	96	96 00
Calftminer.....	1	10	10 00							1	15	15 00	1	30	30 00
Caller										1	20	20 00			
Car builders	5	31	6 50	1	12	12 00				5	105	21 00	5	126	25 50
Car inspectors.....	6	49	8 16	2	44	22 00	2	9	4 50	4	80	20 00	5	285	57 00
Car painters	2	13	6 50							2	30	15 00	2	84	42 00
Car repairers	7	74	10 57	1	24	24 00				6	141	23 50	8	201	25 12
Carpenters.....	102	995	9 75	20	453	22 65	7	31	4 85	87	2,674	30 73	94	3,988	42 42
Carriage makers.....	5	42	8 40	1	18	18 00	1	3	3 00	4	120	120 00	5	342	68 40
Carriage ironers.....	2	25	12 50							2	15	7 50	2	150	75 00
Carriage painters.....	7	39	5 55							4	90	22 50	7	400	57 14

Carriage trimmers	4	25	6 25	1	22	22 00						3	10	8 33		8	72	24 00
Catcher (foundry)	1	5	5 00									1	50	50 00		1	80	80 00
Cigar makers	62	553	8 91	16	287	17 62		622	10 54			58	1,769	50 50		59	3,201	54 26
Cigar packers	1	10	10 00					15	15 00			1	40	40 00				
Clerks	41	502	12 24	16	414	25 89		19	6 33			3	1,161	33 17		40	1,960	49 00
Coal miners	179	1,055	5 89	37	561	15 16		284	3 94			177	3,385	19 12		65	4,527	69 63
Conductors (freight)	2	20	10 00									2	70	35 06		2	110	55 00
Coopers	19	167	8 79	3	46	15 33		79	6 58			16	330	20 62		17	458	26 94
Coopers	7	75	10 71	3	47	15 66		33	5 50			6	160	26 66		5	150	30 00
Curriers	2	3	1 50									1	5	5 00		3	70	23 33
Ditchers	3	54	18 00									2	41	21 50		2	226	113 00
Draughtsmen	1	30	30 00													1	60	60 00
Electrician	12	168	14 00	10	363	36 30		50	10 00			11	332	30 18		12	600	56 66
En ineers (locomotive)	28	321	11 46	7	125	17 85		15	3 75			24	1,046	43 58		25	1,008	40 32
Engineers (stationary)	1	2	2 00									1	50	50 00		1	20	20 00
Express agent	7	62	8 85	2	36	18 00		3	3 00			6	130	21 66		7	597	85 28
Express drivers	2	18	9 00									2	95	47 50		2	223	111 33
Farm hands	16	108	6 75	9	199	22 11		12	4 00			12	165	13 75		14	531	37 92
Firemen (locomotive)	8	94	11 75	1	20	20 00						7	171	24 42		8	208	26 00
Firemen (stationary)	1	5	5 00									1	20	20 04		1	40	40 00
Fisherman	3	17	5 66	1	12	12 00						4	85	21 25		3	35	11 06
Flagmen	2	10	5 00									3	245	88 33		3	85	28 33
Flour packers	14	284	20 28	5	307	61 40		90	90 00			13	915	70 38		13	1,508	116 00
Foremen	4	31	7 75	2	21	10 50						8	135	45 00		4	220	55 00
Furnace men												1	25	25 00		1	20	20 00
Gar.tener												1	20	20 00				
Gilder	1	24	24 00									1	155	51 66		3	135	45 00
Glass blower	3	40	13 33	2	44	22 00		25	8 33			3	45	22 50		4	120	30 00
Grinders	4	35	8 75	1	20	20 00						2	625	26 04		28	903	32 25
Harness makers	28	203	7 25	7	145	20 71		35	5 00			25	150	37 50		4	275	68 75
Heater (bar mill)	4	37	9 25									4	150	150 00		1	20	20 00
Heater (foundry)	1	8	8 00	1	66	66 00						1	150	8 33		3	40	13 33
Helpers in shop	2	7	3 50									2	25	40 00		1	25	25 00
Hod carriers	1	5	5 00									1	40	20 00		1	44	44 00
Horseshoe maker	1	15	15 00									1	20	20 00		1	15	15 00
Horseshoer	1	10	10 00													1	153	51 00
Hottlers	1	2	2 00									2	75	37 50		3	153	51 00
Iron and steel workers	12	106	8 83	2	22	11 00						10	272	27 20		11	440	40 00
Janitors	3	16	5 33	1	18	18 00		6	8 33			1	30	30 00		3	105	35 00
Laborers	285	1,663	5 84	15	304	20 26		154	4 96			272	5,512	20 26		268	6,464	24 11
Laborers (railroad)	8	89	11 12									14	199	14 21		14	597	42 64
Laborers (coal mine)	18	81	4 50	3	57	12 33		2	2 00			15	394	26 26		16	700	43 75
Lard renderer												1	12	12 00		1	40	40 00
Lather	1	4	4 00									1	7	7 00		1	25	25 00
Laundryman	1	10	10 00									1	10	10 00		2	95	47 50
Lead miners	1	8	8 00									1	125	125 00		2	89	44 50
Lumber handlers	4	35	8 75	1	100	100 00						3	30	10 00		7	162	23 14
Machinists	31	349	11 25	6	122	20 33		189	27 00			27	754	27 92		30	1,394	46 46
Machinists (railroad)	7	71	10 57	1	17	17 00						5	175	35 00		7	315	45 00
Machine miners	4	37	9 25	1	20	20 00						4	140	35 00		4	112	28 00
Malsters	5	23	4 60									2	40	20 00		5	163	33 60
Marble workers	14	121	8 64	4	46	11 50		9	4 50			14	327	23 35		17	785	46 17
Master mechanics	2	63	31 50	2	122	61 00										2	117	53 50

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Rollers.....	5	41	8 50	1	6	6 00	4	175	48 75	5	350	70 00
Rolling-mill hands.....	5	63	12 00	1	3	21	7 00	5	108	21 60	5	110	22 00
Roughers.....	2	9	4 50	.....	.....	.....	.....	2	35	17 50	2	110	55 00
Salt maker.....	1	11	11 00	.....	1	7	7 00	1	15	15 00	1	10	10 00
Saw filer.....	1	5	5 00	.....	.....	.....	.....	1	10	10 00	1	25	25 00
Sawyers.....	8	91	11 37	3	2	17	8 50	7	222	31 71	7	235	93 57
Seamen.....	1	4	4 00	2	1	5	5 00	2	16	8 00	2	30	15 00
Section bosses.....	3	23	7 66	1	.....	.....	.....	4	105	26 25	4	134	83 50
Section men.....	8	25	3 12	1	.....	.....	.....	11	246	22 36	9	110	12 22
Sheet-iron workers.....	1	10	10 00	.....	.....	.....	.....	1	30	30 00	1	100	100 00
Shoemakers.....	29	251	8 67	4	4	13	3 25	27	761	28 18	29	860	29 64
Silver plater.....	1	3	3 00	.....	.....	.....	.....	1	4	4 00	1	10	10 00
Shooter (coal).....	1	5	5 00	.....	.....	.....	.....	1	41	41 00	1	35	35 00
Soda-water maker.....	1	25	25 00	1	.....	.....	.....	1	50	50 00	1	25	25 00
Spinner.....	1	6	6 00	.....	.....	.....	.....	1	20	20 00	1	100	100 00
Stair builder.....	1	5	5 00	.....	.....	.....	.....	1	10	10 00	1	12	12 00
Station agents.....	3	25	8 33	.....	.....	.....	.....	4	85	21 25	3	367	122 33
Stone masons.....	19	106	5 57	1	4	12	3 00	14	303	21 64	15	608	40 53
Stone cutters.....	25	203	8 12	7	17	81	4 76	23	514	23 65	27	1,346	49 84
Stove mounters.....	1	5	5 00	1	2	6	3 00	1	8	8 00	2	65	32 50
Street-car conductors.....	5	37	7 40	.....	3	19	6 33	10	405	40 50	9	833	92 55
Street-car drivers.....	9	104	11 55	1	2	10	5 00	11	355	32 27	8	1,199	144 37
Switchmen.....	2	18	9 00	.....	.....	.....	.....	2	110	55 00	2	70	35 00
Tailors.....	15	136	9 07	4	.....	.....	.....	12	303	25 25	15	708	47 20
Telegraphists.....	3	45	15 00	1	.....	.....	.....	2	20	10 00	3	175	53 38
Teamsters.....	56	304	5 42	8	6	24	4 00	54	1,294	23 96	49	1,995	40 71
Tile makers.....	3	23	7 66	.....	.....	.....	.....	1	10	10 00	3	79	29 33
Tinners.....	18	145	8 05	5	2	9	4 50	20	632	31 60	19	744	39 15
Toy makers.....	1	2	2 00	.....	.....	.....	.....	1	10	10 00	1	40	20 00
Track men.....	6	38	6 33	2	.....	.....	.....	4	69	17 25	6	87	14 50
Train despatcher.....	1	10	10 00	.....	.....	.....	.....	1	100	100 00	1	178	178 00
Trunk makers.....	5	50	10 00	.....	5	33	6 60	4	57	14 25	5	350	70 00
Upholsterers.....	5	41	8 20	2	4	28	7 00	8	173	21 62	7	242	94 57
Wagon makers.....	12	77	6 41	.....	1	3	3 00	8	126	15 75	11	335	90 45
Walter.....	1	4	4 00	.....	.....	.....	.....	1	16	16 00	1	14	14 00
Watch-factory operatives.....	3	29	9 66	1	.....	.....	.....	1	30	30 00	2	100	50 00
Watch makers.....	4	36	9 00	.....	.....	.....	.....	1	10	10 00	2	35	17

This tabulation gives us, out of 2,129 families, 1,785 who expend an average of \$8.57 per annum for books and papers; 335 who are carrying life-insurance at an annual cost of \$22.79 per family; 433 connected with trades unions, in support of which they contribute \$6.59 each, per annum; 1,633 who have incurred an average expense of \$25.57 per annum on account of sickness; and 1,606 who report an average expenditure of \$41.77 for sundry items not otherwise specified. These are the averages for the given numbers of families who report expenditures for these objects, not the averages which would result from a division of the several aggregate sums by the whole number of families considered in this series of tables. Such a formula would give us as the averages for 2,129 families, \$7.19 for books, \$8.58 for life-insurance, \$1.34 for trades unions, \$19.61 for sickness, and \$31.51 for sundries. We prefer to emphasize the specific average for those who actually incur these expenses, indicating in each case the number on which it is based, though the consideration of both sets of averages is important. It will be observed that the whole number of families does not appear in any one of these columns, the inference being that those who do not report any outlay under these heads find their entire income absorbed by the simpler necessities of living, shelter, food and raiment. The largest number, 80 per cent. of the whole, are found in the column for books and papers, about 75 per cent. have had sickness in their families, and the same proportion report sundry expenses in addition to those specified. Those who are able to provide for the future of their families by insuring their lives, constitute 15+ per cent. of the whole, and those identified with trade organizations, many of which provide for payments of money in case of sickness or death, are numerically 20 per cent. of the whole.

A supplementary classification of miscellaneous expenses is made in the following table, showing the number of families in each town which incur the expenses mentioned, and the average amounts expended for each:

TABLE VIII. — *Miscellaneous Expense Items and the Average Amounts Expended Yearly for them in different Places.*

PLACES.	POPULATION	AVERAGE NO. OF FAMILIES.....	BOOKS AND PAPERS.		LIFE INSUR- ANCE.		TRADES UNIONS.		SICKNESS.		SUNDRIES.	
			No. of families	Cost per family..	No. of families	Cost per family..	No. of families	Cost per family..	No. of families	Cost per family..	No. of families	Cost per family
Alma.....	185	4.4	5	\$4	4	\$15	9	\$10	3	\$38	6	\$80
Alton.....	8,978	5.9	48	6	4	24	7	6	46	23	45	37
Aurora.....	11,875	3.9	83	9	27	24	7	6	94	20	84	26
Bartonville.....	450	6.4	13	7	7	18	2	3	8	8	13	14
Belleville.....	10,682	4.8	52	9	17	18	50	9	56	43	69	36
Bloomington.....	17,184	4.1	68	5	3	4	3	2	71	11	8	17
Carlinville.....	3,188	5.4	2	5	5	1	2	7	21	9	9	20
Caseyville.....	900	7.5	3	4	4	1	1	4	47	4	4	35
Centralia.....	3,623	3.9	28	7	10	25	5	7	36	23	43	42
Champaign.....	5,106	4.3	82	9	13	32	5	7	57	21	91	58
Chicago.....	503,305	4.8	274	10	66	17	149	7	220	30	274	54
Coal City.....	568	5.2	10	8	6	13	3	2	10	20	13	39
Collinsville.....	2,839	4.7	16	4	4	1	2	3	21	32	24	31
Danville.....	7,735	4.5	82	8	4	13	21	5	64	21	8	15
DuQuoin.....	2,808	4	13	5	1	20	2	23	13	12	12	29
East St. Louis.....	10,000	4.3	75	9	24	20	5	8	18	30	65	44
Elgin.....	8,739	3.9	14	9	1	52	19	2	12	17	15	46
Equality.....	500	4.4	32	4	1	6	19	2	32	27	123	55
Freeport.....	8,516	4.9	15	8	3	2	2	2	8	19	11	25
Fulton.....	1,733	4.4	7	7	1	20	1	6	6	21	4	12
Galena.....	6,454	5.	39	4	1	55	1	8	25	22	42	45
Galesburg.....	11,446	4.1	43	8	12	27	1	18	51	31	50	33
Gardner.....	786	5.	15	4	2	12	1	4	20	21	19	20
Gartside.....	103	4.2	4	2	2	1	1	5	5	36	4	31
Jacksonville.....	10,927	3.7	56	9	11	33	16	10	60	17	61	46
Joliet.....	11,659	5.5	43	9	15	13	15	8	44	28	44	40
Lincoln.....	7,639	4.5	4	4	3	17	3	4	4	13	4	12
Mattoon.....	5,742	4.4	27	8	5	17	2	4	25	20	22	54
Moline.....	7,805	3.8	107	7	27	22	16	7	93	33	119	29
Mt. Pulaski.....	1,127	4.5	2	2	2	25	1	2	2	5	2	5
Pekin.....	5,998	4	18	4	1	12	7	4	15	23	19	35
Peoria.....	59,319	4.5	132	9	3	10	29	6	91	25	150	27
Peoria County.....	5	5	21	9	9	1	1	5	13	9	22	17
Pontiac.....	2,243	4.4	32	16	11	23	3	4	29	20	32	28
Quincy.....	27,275	5.	12	9	1	1	1	13	13	14	11	36
Rentchler.....	148	3.5	2	1	1	12	2	6	2	5	2	8
Rock Falls.....	894	5.7	4	5	4	1	1	4	4	15	3	2
Rock Island.....	11,661	4.7	77	7	16	18	38	4	51	38	76	33
Springfield.....	19,746	5.1	30	11	14	23	5	8	23	20	20	53
Sterling.....	5,089	5.2	47	8	9	25	2	15	46	16	46	8
Streator.....	5,158	4.1	44	10	24	16	12	4	36	19	32	35
Summerfield.....	151	9.	1	5	2	1	1	1	1	10	1	7
Urbana.....	2,943	5.1	10	13	2	39	1	2	2	128	10	51
Totals.....			1,785		335	\$22 79	433		1,633		1,606	
Averages.....				\$8 57			\$6 59		\$25 57		\$41 77	

This table enables us to locate those who make the outlays for the given objects, and upon a close examination will indicate in what places the greater number report sickness, life insurance, membership in unions, etc.

In considering these tables, devoted to the miscellaneous items of family expense, a peculiar interest will doubtless attach to the columns in regard to trades unions, and we consequently make a somewhat closer inspection of the facts shown on that subject.

Out of 2,129 heads of families, we find that 438, or 20+ per cent. of the whole, report certain sums expended for the maintenance of labor organizations. It is possible that some who contributed to these returns took occasion to obscure the amount thus expended in the general sum given for sundries, but as a rule little objection was made to this interrogatory, and we are led to believe that the number who report expenses for this object constitute a very large majority, if not all, of those who belong to such associations. As some societies, however, are nominally secret, and prefer to conceal their membership, it is possible that the above + per cent. is somewhat less than the real proportion of workmen in Illinois who are identified with organizations for their mutual advancement. However this may be, some facts of interest may be deduced from the returns made, which will more fully appear in the following tabulation.

This shows those occupations in which organization is most general, the number in each who report expenditure for this object, and those who do not; and in this connection we have computed the average earnings of those who belong to labor unions, and of those who do not, and the reported cost to the former of maintaining them.

TABLE IX.—*Showing the Influence of Trades Unions upon Earnings.*

OCCUPATIONS.	Whole number reporting.....	No. connected with trades unions	Average earnings of the same...	Amount expended in support of unions.....	No. not connected with trades unions.....	Average earnings of the same ..
Bakers	14	1	\$524	\$25	13	\$471
Barbers	18	1	600	3	17	564
Blacksmiths	75	1	600	10	68	624
Brick layers	46	1	639	6	36	636
Brick makers	6	2	468	3	4	404
Butchers	27	2	501	6	25	516
Cabinet makers	16	1	686	11	13	430
Car inspectors	6	1	616	5	4	599
Carpenters	111	1	496	5	104	556
Carriage makers	5	1	496	3	4	448
Cigar makers	79	1	488	11	20	506
Coal miners	232	1	400	4	169	379
Coopers	22	1	457	6	10	403
Curriers	7	1	572	5	1	450
Engineers (locomotive)	13	1	1,117	10	7	931
Engineers (stationary)	30	1	551	4	26	649
Firemen (locomotive)	16	1	543	4	13	676
Glass blowers	3	1	774	8	.....	.....
Harness makers	31	1	625	5	24	525
Horse shoer	1	1	900	6	.....	.....
Iron and steel workers	13	1	923	9	7	508
Laborers	397	1	373	5	366	342
Machinists	35	1	634	13	20	632
Machine miners	4	1	648	3	2	734
Maltsters	5	1	624	10	4	599

Table IX.—Continued.

OCCUPATIONS.	Whole number reporting.....	No. connected with trades unions.....	Average earnings of the same...	Amount expended in support of unions.....	No. not connected with trades unions.....	Average earnings of the same....
Marble workers	17	2	\$478	\$5	15	\$582
Moulders.....	49	28	719	8	21	702
Nailers	7	5	1,393	11	2	1,455
Painters.....	62	17	562	6	45	480
Paper hangers.....	6	1	555	3	5	611
Picture-frame makers.....	2	2	765	11	.....	.....
Plasterers	23	7	808	6	16	546
Plow-factory men.....	7	1	648	3	6	683
Plumbers	10	2	600	5	8	867
Potters	4	1	525	8	3	360
Printers	26	13	712	6	13	596
Rolling-mill hands.....	5	3	563	7	2	292
Sawyers.....	8	2	648	8	6	490
Shoe makers	32	4	449	3	28	470
Stone masons	19	4	437	3	15	475
Stone cutters	28	17	693	5	11	343
Stove mounters	2	2	420	3	.....	.....
Street-car conductors.....	10	3	723	6	7	688
Street-car drivers.....	11	2	716	5	9	621
Tailors.....	16	1	520	6	15	544
Teamsters	66	6	551	4	60	451
Tinners.....	21	2	552	5	19	599
Trunk makers	5	5	703	7	.....	.....
Upholsterers	9	4	465	7	5	490
Wagon makers	12	1	624	3	11	569
Wood machinists.....	20	12	729	5	8	755
Wood workers.....	17	4	773	11	13	617
Totals.....	1,703	433	.....	.....	1,270	.....
Averages.....	.....	.....	\$569	\$6 59	.....	\$476

We find here 52 occupations, represented by 1,703 workmen, of whom 433, or 25 per cent., are connected with trades unions, and report certain amounts as expended annually in their support. The remaining 1,270 not reporting any such item of expense, are presumably not so connected, and we institute our comparisons upon that presumption. The average earnings given here are those of the heads of families respectively, and not the combined earnings of the family, as the amount of assistance rendered by wives and children would not be affected by the membership of the father in organizations of this character.

It will be observed that our resultant averages for the earnings of these two classes are, for the members of labor associations \$569, and for those not members \$476 per annum. This, upon the face of it, indicates a very strong case in favor of organization for the pecuniary benefit it confers, but a closer examination as to the showing in specific trades, especially in some of those in which organization is believed to be most general, fails to establish the universality of those benefits.

We find, for instance, that the 68 non-union blacksmiths earn somewhat more than the 7 union blacksmiths; that in regard to bricklayers, who are about equally divided in this respect, the average earnings of the two classes are nearly identical, while the cigar makers, three-fourths of whom belong to the union, show rather the larger earnings for the one-fourth who do not. It may be said, however, in regard to these, that about half of them are working in Chicago, where there have been two strikes during the year, which, although they may have rendered their earnings smaller for the year covered by these reports, really secured to them a considerable advance in wages, the results of which would not appear until the end of another year. The union carpenters also show smaller average earnings than others, but there are only 7 of them as against 104 who are non-union, and the conditions for a comparison are consequently defective. Stationary engineers, marble workers, shoe makers, stone masons, tailors and tanners show similar results for similar reasons.

In many of the larger classes, however, and among the more skilled and better organized workers, such as locomotive engineers, iron moulders, printers, painters and stone cutters, the average wage is materially larger among those who are found in the protective societies, and the average results as to the whole number, as already indicated, establish the decided pecuniary advantage of such membership.

An additional feature of this table deserving attention, is the column showing the amounts contributed to maintain these organizations. These vary from \$1 to \$25, but the most of them range from \$3 to \$10, with an average sum for the whole number of \$6.59 per annum. It is essential, of course, to have this item in reckoning the relative remuneration accruing to the two classes, but it must be regarded as trifling when compared with the difference in the average earnings which apparently arises from this moderate investment.

Although the deductions arrived at by this inspection of one feature of our returns must be regarded as indicative rather than conclusive, owing to the insufficiency of the data, they still possess an unusual interest, and deserve some scrutiny because of the difficulty of obtaining any data at all upon this subject. While it might be feasible on the part of the organized classes to furnish exact statistics as to their membership, they could hardly reach those outside of it, so as to obtain a comparison of actual experiences. This

contribution from both has, therefore, a special value, and so far as known constitutes the only statistical summary which has been compiled on this subject. Briefly stated, the conclusions developed by this inquiry are, that 20+ per cent. of our workingmen maintain organizations for their mutual advancement and protection, to the support of which they contribute an average sum of \$6.59 per capita per annum, and that their average earnings are about one-fifth greater than those in the same occupations who are not so organized.

RECAPITULATION.

Having thus carefully scrutinized in detail the various items which enter into the yearly expense account of the average workingman's family, we may present a concise summary of the facts deduced in regard to each, by tabulating the results as follows,—showing, first, the number of families in each case upon whose actual experience the given averages are based, and then the several amounts expended for each item, and the proportion of each to the whole:

TABLE X.—Recapitulating the results obtained in the preceding tables.

CLASSIFICATION.	No. of families on which the averages are based...	Average annual cost per family ..	Percentage of the entire cost of living	CLASSIFICATION.	Average annual cost per family ..	Percentage of the entire cost of living
Rent.....	1,699	\$96 83	17.42	} Shelter	\$128 05	23%
Fuel.....	2,129	31 22	5.63			
Meat.....	2,128	67 90	12.24	} Subsistence.....	229 27	42%
Groceries	2,128	161 37	29.14			
Clothing	1,529	55 45	10.00	} Clothing.....	116 42	21%
Boots and shoes.....	1,529	25 71	4.65			
Dry goods.....	1,529	35 26	6.35			
Books, etc.....	1,785	8 57	1.54	} Miscellaneous	80 84	14%
Sickness.....	1,633	25 57	4.61			
Sundries.....	1,606	46 70	8.42			
Averages.....	1,769	\$554 58	100.00		\$554 58	100%

In this *resumé* are given the respective average amounts expended for ten specific items, and also for the four general accounts to which they were primarily reduced; and the relations which the given amounts sustain to the whole cost of living is expressed in

percentages extended opposite each. The averages for life insurance and trades unions are embraced in the general sum of sundries, as they are exceptional expenditures, and the number of families reporting them is comparatively small. On the other hand the specified items cover all the essentials of plain living, and the cost of them as shown here is the result of the combined experience of an average of 1,769 families, so that neither the validity nor the comprehensiveness of these ultimate figures can well be challenged.

It will be observed that the sum of these averages is \$554.58, while the general average for the cost of living as shown on page 255, *ante*, is \$507.25. This is only an apparent discrepancy however, as the latter is an average for 2,129 families, the records of some of which are only partial, while this final average is made upon carefully considered details contributed by an average of 1,769 families. The former is of value as presenting the proper contrast with the average earnings deduced by a similar process; the latter as affording the true proportion of the different elements in the expense account.

The percentages however possess the intrinsic value, for by them we may adjust the items, within certain limits of course, for any given total. Assuming \$507.25 to be the true average, it is only necessary to compute 23 per cent. of it for Shelter, 42 per cent. of it for Subsistence, 21 per cent. of it for Clothing, and 14 per cent. for Sundries, to have the proportionate amounts expended for each.

These percentages moreover enable us to institute some comparisons with results obtained by other statisticians who have pursued a similar enquiry.

In the Massachusetts reports for 1875 and 1884, the expense accounts of the average workingman's family are considered and analyzed, and in the latter report a similar treatment is given statistics on the same subject procured in Great Britain. Placing the results of our analysis in juxtaposition with those, we have the following interesting exhibit as to Illinois, Massachusetts and Great Britain, respectively:

TABLE XI.—*Percentages of Expenditure by the Families of Working-men in Illinois, Massachusetts and Great Britain.*

CLASSIFICATION.	ILLINOIS.		MASSACHUSETTS GREAT BRITAIN.			
	Average	Per cent.	Average	Per cent.	Average	Per cent.
Rent.....	\$96 83	17.42	\$148 95	19.74	\$68 55	13.48
Groceries.....	*161 37	29.14	222 68	29.52	163 50	32.16
Meat.....	67 90	12.24	100 63	13.34	69 94	13.77
Fish.....			25 00	3.31	11 24	2.21
Milk.....			23 42	3.11	16 39	3.22
Fuel.....	31 22	5.63	32 42	4.30	17 81	3.50
Clothing.....	55 45	10.00	77 89	10.32	57 27	11.27
Boots and shoes.....	25 71	4.65	27 37	3.63	17 47	3.44
Dry goods.....	35 26	6.35	15 11	2.00	17 33	3.41
Sundries.....	†80 84	14.57	80 95	10.73	68 81	13.54
Totals.....	\$554 58	100.00	\$754 42	100.00	\$508 35	100.00

* Fish included. † Milk included.

The general harmony which prevails in these percentages drawn from widely different sources is strongly confirmatory of our deductions, and at the same time the discrepancies which may be observed afford a very interesting study of the relative cost of living in its details, here and elsewhere. It will be noted that the percentage expended for rent is somewhat less here than in Massachusetts, and more than in Great Britain; that the expenditure for meat is about the same in Massachusetts and Great Britain, but less in Illinois than in either. The proportion for groceries is greatest in Great Britain, and about the same in the two States. The larger percentage expended in Illinois for fuel can hardly be accounted for except upon the hypothesis that a greater quantity is used; but this could not be established except by a comparison of the average size of houses, the data for which is wanting. The widest difference is found in the percentages for dry goods, that for Illinois being much larger than the others. We have already referred to the difficulty in discriminating closely between the outlay for dry goods and that for clothing. For clothing proper our percentage is somewhat less than that of England or Massachusetts, and by combining clothing and dry goods in these columns we have for Illinois 16.35 per cent., for Massachusetts 12.32, and for Great Britain 14.68, the differences being less marked then when the item of dry goods is considered separately.

It should be remarked however that the averages in the Massachusetts report are based upon the itemized accounts of 19 families in that State, and of 16 families in Great Britain, while those for Illinois are drawn

from the estimates made by an average of 1,769 families. Yet the value of the deductions can not be measured wholly by the mere numerical representation, as the smaller number, being selected with special reference to their representative character, may well be regarded as fairly typical of the communities from whence they are drawn.

Dr. Engel, the head of the Statistical Bureau at Berlin, Prussia, has also formulated the results of his investigations as to the cost of living in that country, and has given us three tables of percentages, for three different classes of the population—those receiving very small incomes, those receiving larger incomes, and those in easy circumstances—with a view to establishing not only the ratios existing between the several items of expenditure, but the variation of those ratios as affected by greater or less incomes.

Making use of the percentages deduced for the intermediate class, as most nearly corresponding with our working classes, and condensing the details of the foregoing table to the more generic classification, we are enabled to present a still broader field for the comparison of these average percentages of expenditure.

TABLE XII.—*Comparative Percentages of Expenditures in Illinois, Massachusetts, Great Britain and Prussia.*

ITEMS.	Illinois, Per cent....	Massachusetts Per cent....	Great Britain, Per cent....	Prussia, Per cent ...	Average, Per cent ...
Subsistence	41.38	49.28	51.36	55.00	49.25
Clothing	21.00	15.95	18.12	18.00	18.27
Rent.....	17.42	19.74	13.48	12.00	15.66
Fuel.....	5.63	4.30	3.54	5.00	4.61
Sundres	14.57	10.73	13.54	10.00	12.21
	100.	100.	100.	100.	100.

This interesting abstract of the ultimate deductions of various investigators in different countries affords rather a remarkable confirmation of the general soundness of the conclusions of all of them, and at the same time presents a comparative statement based upon such a wide range of data as to give it the highest statistical value. However subsequent inquiry may affect these specific figures, there

can be no doubt of the general accuracy of the fixed relations shown here between the various elements in the average cost of living.

The variance observable in the percentages for the two States in this country is not less interesting than that between the different countries. The food supplies, for instance, in Illinois, absorb a smaller proportion of the income than in Massachusetts, and in that State less than in either of the other countries. On the other hand, the proportion for clothing is greater in this State, and that for rent is smaller, than in Massachusetts; and, although the percentage for fuel is greater here, the two, rent and fuel together, constitute a smaller proportion of the whole than the sum of those two percentages for Massachusetts. In the matter of sundry expenses, however, which may be regarded as representing all the workingman has above the mere essentials of living, the percentage is larger here than in any of the other localities, and more than the general average for all of them.

A glance at the relative percentages in this country and Europe may be had by combining those for Illinois and Massachusetts as representative of conditions in the United States, and also those for Great Britain and Prussia as representative of European conditions. This process, although obscuring the distinctive features of the respective places, affords an interesting summarized exhibit, as follows:

ITEMS OF EXPENDITURE.	United States, Per cent.....	Europe, Per cent.....
Subsistence.....	45.33	53.18
Clothing.....	18.47	18.06
Rent.....	18.58	12.74
Fuel.....	4.97	4.25
Sundries.....	12.65	11.77
	100.	100.

Here the contrast is maintained between the percentages for subsistence—that for Europe, or the mean between England and Germany, being nearly 20 per cent. greater than that for this country, or the mean between Illinois and Massachusetts. The difference in

regard to clothing is, however, almost obscured, although the percentage is naturally still somewhat larger for this expenditure on this side the water. In the percentages expended for house rent, there is the widest discrepancy of all,—the proportion of the income expended for shelter being 50 per cent. greater in this country. How far this may be accounted for by the better character of the tenements in this country, and how much of the difference is legitimately chargeable to higher rentals, can hardly be determined without further data from abroad. The difference between the two countries in the fuel percentage is not material, but the proportion expended for miscellaneous purposes is larger with us.

Having thus analyzed and determined the general character of the expenses incurred by the average workingman in Illinois, in the support of his family, we may close this branch of the subject with a brief summary of the conclusions to which this enquiry has led.

1. It appears that 42 per cent. of the family expenses of workingmen in this State are for food, 23 per cent. for rent and fuel, 21 per cent. for clothing, and 14 per cent. for miscellaneous purposes.

2. That, as compared with the working classes in Massachusetts, those in this State expend smaller percentages of their income for subsistence and shelter, and larger percentages for clothing and for miscellaneous purposes.

3. That, as compared with the middle classes of workmen in foreign countries, those of Illinois show still smaller percentages for subsistence, but larger percentages for clothing, shelter and sundries—which, it is believed, indicates not only higher prices for clothing and shelter in this country, but also better home surroundings, and a higher standard of living.

4. That out of 2,129 families, living in 53 different places, 1,399, or 65+ per cent., pay rent, at the average rate of \$96.83 per annum for tenements averaging 4.07 rooms each; that 730, or 34+ per cent., own the homes in which they live; that while this percentage obtains for the State at large, only 7 per cent. of those reporting from Chicago are house-owners, and 17 per cent. of those in the mining communities, while in 19 of our principal towns 48+ per cent. have homes of their own.

5. That 15+ per cent. of the heads of families are able to insure their lives for the benefit of their families; and that the average sum expended by each for this purpose is \$22.79 per annum.

6. That 433, or 20 per cent. of the 2,129 heads of families, are connected with labor organizations, at an annual cost of \$6.59 per capita; and that the average earnings of these is somewhat larger than the average for those in the same occupations not connected with such organizations.

CHAPTER V.

PRICES OF COMMODITIES IN ILLINOIS, AND ELSEWHERE.

While we have shown the relative earnings of workingmen in various occupations and places, and the amounts expended in maintaining their families, by averages in dollars and cents, it is evident that the real measure of both must be found in the purchasing power of the money, or, in other words, in the prevailing prices of commodities. It is not so important what the specific wages may be in a given locality, as what amount of those things necessary to comfortable living they represent. Those wages are best which secure the necessaries of life at the least expenditure of time, skill and endeavor, regardless of the specific amount of earnings, because there remains a greater surplus of time and energy to devote to other purposes. The worker may continue to expend these in the same direction, for more wages, but what he wants and gets is more of the equivalents of money. Consequently, it is essential to know not only what earnings the industrial classes may receive in this State, but what they can buy with them; and any comparisons in regard to the economic conditions of industrial communities must embrace a consideration of the prices of commodities, in order to fix the real standard of wages.

With a view to ascertaining the retail prices of staple articles of subsistence in Illinois, so as to perfect the foregoing wage presentation, we have procured from thirty-four of the principal cities and towns from which our statistics of earnings have originated, price-lists of groceries, provisions and fuel. These are the prime necessities, which absorb more than half the average income, and the prices of which most nearly affect the family expense account.

The figures have been obtained from dealers whose trade is chiefly among the working classes, and represent the current prices at which

the specified articles are sold in small quantities. From Chicago and some of the larger places lists of prices have been procured from more than one place of business, to show what local variations there may be, so that, in all, we have reports from 46 dealers distributed throughout the State, giving the retail selling prices of those commodities in most general use among the working people whose incomes and expenses we have considered.

From this array of figures we undertake to derive the ruling prices for the common articles of food, and of fuel, for the State at large for the current year. In regard to some of them there may be a possible question as to the precise grade or quality intended, as in the case of flour, tea, sugar, etc., of which there is a variety of kinds and prices, which it was found impracticable to define in our blanks, except in general terms. In regard to the greater part of the list, however, the articles have a standard character, and the difference in prices is not great. Bearing in mind the general character of the stores and of their customers, it will not be difficult to understand the kind of goods to which the figures refer.

With these comments, we present the following table, showing the prevailing prices in different places, and the averages derived from them for the State at large.

TABLE I.—Showing the retail prices of Groceries,

Towns.	Family flour per barrel	Corn meal per cwt.	Bread per loaf	Brown bread per loaf	Crackers per pound	Milk per quart	Coffee per pound	Tea (common) per pound	Sugar per pound	Eggs per dozen	Butter per pound	Cheese per pound	Molasses per gallon	Soap per pound	Salt per sack	Baking powder per pound	Bacon per pound
Aurora	\$6 00	\$1 40	7	7	10	6	25	35	9	15	30	18	50	5	20	40	12
Alton	6 00	1 00	4	5	8	4	16	30	8	20	25	15	50	6	15	35	11
Alton North	6 50	1 50	5	5	10	7	15	35	8	15	15	15	50	5	10	25	12½
Bloomington	6 00	1 50	5	5	8	6	20	35	8	15	30	20	60	6	10	35	12
Carlinville	6 00	1 40	6	7½	10	6	17	25	9	17	20	20	70	6	10	50	12½
Centralia	6 15	1 65	5	5	8	5	20	35	8	15	20	18	50	8	10	25	12½
Champaign	6 40	1 50	5	5	10	5	20	60	10	20	30	8	60	10	10	45	12
Chicago	7 00	3 00	7	7	10	6	25	50	9	25	30	18	80	7	5	25	25
Chicago	6 50	2 00	6	6	10	6	30	40	8	20	30	18	80	7	5	40	14
Chicago	6 50	2 00	6	7	10	6	25	50	8	15	30	17	60	7	5	45	15
Chicago	7 00	2 00	6	4	10	6	25	50	8	15	30	18	80	6	5	40	16
Cottleville	6 75	1 75	7	10	9	6	25	50	9	25	30	17	85	7	10	45	15
Coal City	6 20	1 80	5	5	8	5	22	50	9	17	25	17	30	6	10	50	12
Danville	7 00	75	10	10	8½	6½	20	50	10	25	25	20	70	10	10	25	16
Danville	6 50	75	7½	7½	10	5	18	40	12	20	25	20	60	6	15	40	15
DuQuoin	6 00	1 40	4	4	9	6	18	50	4	12	20	18	60	6½	8	35	12½
East St. Louis	6 50	75	5	5	8	7½	20	50	7	20	30	16	50	5	15	20	12½
Equia City	6 00	90	8	8½	8	10	14	50	4	15	20	20	40	5	10	25	10
Freeport	6 00	1 50	6	6	8	5	16	50	8	15	25	16	75	5	20	50	14
Freeport	6 00	2 00	...	6	10	...	16	55	8	16	25	15	75	5	20	50	14
Fulton	6 40	1 40	5	5	6½	5	20	60	9	13	20	15	60	6	10	50	15
Gardner	6 60	2 00	5	...	10	5	18	50	9	20	25	17	80	6	15	37½	15
Galesburg	6 60	1 00	5	5	8	6	20	75	9	25	30	18	70	6½	10	50	15
Galesburg	5 70	1 75	5	5	10	5	15	50	8	15½	25	12½	50	5	10	5	12½
Jacksonville	6 00	1 50	5	5	10	6	30	40	12½	15	25	18	75	6	10	40	12½
Joliet	6 70	1 80	5	5	10	5	20	50	8	25	25	18	60	7	10	40	14
Joliet	7 00	1 00	5	5	10	5	25	60	9	25	25	15	60	6	10	50	15
Lincoln	8 00	...	...	5	10	6	30	60	12	25	25	18	75	10	15	60	14½
Lockport	5 50	1 20	5	5	8	6	25	60	9	20	25	16	50	5½	10	40	14
Mattoon	6 50	1 20	5	8	8½	6	17	60	8½	20	25	18	60	6	5	45	15
Moline	6 00	85	5	5	8	...	17½	60	8½	25	25½	17	60	5	7	45	13
Pekin	6 00	85	5	5	8	...	17½	40	8½	25	25	13	60	5	5	35	13
Peoria	6 40	1 00	5	...	8	5	20	30	6	22	28	20	50	5	10	5	15
Pontiac	6 00	1 40	5	5	10	5	16	50	7	15	18	14	60	6	15	50	12½
Quincy	5 50	1 25	5	5	10	5	25	50	8½	30	28	17	85	6	5	50	14
Quincy	5 75	2 00	5	5	10	6	25	50	8	15	30	20	75	6	5	15	15
Quincy	5 75	2 00	5	5	8	5	20	50	8	25	30	20	50	6	5	35	12½
Reichler	1 50	1 50	5	5	8	5	8	50	9	15	25	15½	8	6	...	...	...
Rock Island	6 00	1 00	5	5	8	6½	20	50	10	30	30	16	60	6½	5	30	14
Rock Island	6 40	1 00	6	6	9	5	20	50	11	25	23	14	60	10	25	40	15
Rock Island	6 50	2 00	10	10	8½	7	20	60	10	20	30	15	75	7	8	45	12½
Springfield	5 50	1 40	7	7	8	7	20	50	7	20	25	6	50	5	20	40	11
Springfield	4 75	1 50	4	...	8½	7	16	65	7	13	25	20	60	8	10	40	13
Springfield	6 00	2 00	5	5	8	5	20	35	7½	15	28	16	50	5	10	50	10
Streator	6 50	1 40	5	5	10	6	18	60	8	20	20	12½	50	5	8	40	12½
Streator	6 60	1 80	5	5	10	6	20	60	8	20	20	15	60	5	10	40	15
Gen averages	\$6 20	\$1 54	5 6	5 8	9	5 8	20 5	51 7	8 7	17 4	25 8	17	62 2	5 06	10 6	38 9	13 7

From this table we derive the following list of average prices, which may be regarded as properly supplementing our tables of average earnings and expenses, and as true of this State for the month of April, 1884:

TABLE II.—*Showing average prices of Food Supplies and Fuel, for the State.*

ARTICLES.	Average Prices.	ARTICLES.	Average Prices.
Family flour, per barrel.....	\$6 26.	Mutton, per pound	\$0 12 1
Corn meal, per hundred-weight....	1 54.	Poultry, per pound	12 6
Bread, white, per loaf	05 6	Salt pork, per pound.....	12.
Bread, brown, per loaf	05 8	Hams, smoked, per pound.....	15 3
Crackers, per pound.....	09.	Codfish, dry, per pound	09 8
Milk, per quart	05 8	Mackerel, salt, per pound.....	10 3
Coffee, roasted, per pound.....	20 6	Fresh fish, per pound	10 5
Tea, common, per pound.....	51 7	Potatoes, per bushel	45 8
Sugar, brown, per pound.....	08 7	Beans, per quart	09 7
Eggs, per dozen	17 4	Onions, per bushel.....	81 9
Butter, per pound	25 8	Dried apples, per pound.....	10 3
Cheese, per pound.....	17.	Dried peaches, per pound.....	13 4
Molasses, per gallon	62 2	Canned fruit, per can.....	18 2
Soap, common bar, per pound.....	06.	Raisins, per pound	13 4
Salt, per sack	10 6	Lard, per pound	12 4
Baking powder, per pound	38 9	Vinegar, per gallon.....	26.
Bacon, per pound	13 7	Kerosene, per gallon	19 6
Beef, corned, per pound	09 7	Soft coal, per ton.....	2 95.
Beef or pork, roast, per pound.....	12 3	Hard wood, per cord.....	4 80.

The reports of the Massachusetts bureau contain tables similar to the foregoing compiled for different periods during the last twenty-three years, and giving the current prices for staple articles of food and for fuel, for the years 1860, 1872, 1878, 1881 and 1883, in that State. By collating these we have the serial exhibit of prices in Massachusetts, and may bring the current prices obtained in this State into comparison with them.

TABLE III.—*Prices in Massachusetts, 1860-1883, and in Illinois, 1884.*

QUAN- TITY.	ARTICLES.	MASSACHUSETTS.					ILLINOIS
		1860	1872	1878	1881	1883	1884
	<i>Groceries.</i>						
Lb	Flour, wheat, family.....	\$0 03 6	\$0 06 5	\$0 04 1	\$0 04 4	\$0 03 6	\$0 03 1
"	Corn-meal	02 3	01 8	02	03 1	02 7	01 5
"	Codfish, dry.....	05 3	08 3	06	07 5	10 2	09 8
Qt.	Beans	08.	09 5	08 3	13 3	11 8	09 7
Lb	Tea, Oolong.....	54 8	69.	60 3	53	53 9	51 7
"	Coffee, roasted	23	42 5	26 5	28 8	20 9	20 5
"	Sugar, good, brown.....	08 3	10 3	08 8	09 1	08.	08 7
Gal	Molasses, New Orleans	50 8	70.	57 3	60 5	69 7	62 2
Lb	Soap, common.....	08 8	08.	08.	06 8	08.	06.
Gal.	Oil, kerosene		30.			18 6	19 6

Table III.—Continued.

QUAN- TITY.	ARTICLES.	MASSACHUSETTS.					ILLINOIS
		1860	1872	1878	1881	1883	1884
	<i>Provisions.</i>						
Lb	Beef, roasting.....	11.	19.	14.5	17.	16.9	12.8
..	Beef, corned.....	06.5	10.5	08.	10.3	10.5	09.7
..	Mutton, leg.....	12.5	19.	17.3	16.3	16.1	12.1
..	Pork, salt.....	11.	11.	09.8	13.3	11.8	12.
..	Pork, hams.....	13.	13.5	12.5	15.3	15.	15.3
..	Lard.....	13.3	14.8	10.8	14.8	12.4	12.4
..	Butter.....	21.8	39.3	25.3	34.7	30.2	25.8
..	Cheese.....	13.3	17.5	12.3	17.5	14.5	17.
Bus.	Potatoes.....	59.	1 02.	97.8	1 26.	74.7	45.8
Qt.	Milk.....	04.8	08.	05.3	06.	07.1	05.8
Doz.....	Eggs.....	20.3	30.	25.	32.5	36.	17.4
	<i>Fuel.</i>						
Ton.	Coal.....	5 72.	8 25.	5 75.	6 00.	6 20.	2 95.
Cord	Wood, hard.....	10 38.	16 20.	10.77.	14 34.	10 52.	4 80.

This indicates uniformly lower prices for this class of supplies, here, than in Massachusetts, although, as has been indicated, it is possible that in some cases there may be a corresponding difference in the respective grades of the articles specified. Yet, as the figures, in both instances, have been procured for the common purpose of illustrating the cost of living to working people, and from sources most likely to afford correct information on the subject, the differences which appear in our favor are presumably in the prices themselves.

From the same report we obtain a statement of the prevailing prices of similar supplies in Great Britain, as procured by agents of the Massachusetts bureau in 1883. This enables us to extend our comparisons to that country, and we present the following comparative table of current prices for the three widely separated communities:

TABLE IV.—*Prices of Groceries, Provisions and Fuel, in Illinois, Massachusetts and Great Britain, 1883-4.*

QUAN- TITY.	ARTICLES.	Illinois, 1884.	Massachu- setts, 1883.	Great Britain 1883.	ARTICLES WHICH ARE LOWEST IN PRICE IN—		
					Illinois.	Massa- chusetts.	Great Britain.
	<i>Groceries.</i>						
Pound ..	Flour, wheat, family	\$0 03.1	\$0 03.6	\$0 03.3	Flour		
Pound ..	Corn meal	01.5	02.7	01.8	Corn meal		
Pound ..	Codfish, dry	09 8	10.2	08.5			Codfish ..
Quart ..	Beans	09.7	11 3	07.5			Beans
Pound ..	Tea, Oolong	51.7	53.9	61.6	Tea		
Pound ..	Coffee, roasted	20 5	20.9	35.4	Coffee		
Pound ..	Sugar, good, brown	08.7	08.	06.			Sugar
Gallon ..	Molasses, New Orleans ..	62 2	69.7	57 6			Molasses ..
Pound ..	Soap, common	06.	08.	05.8			Soap
Gallon ..	Oil, kerosene	19.6	18.6	17.			Kerosene.
	<i>Provisions.</i>						
Pound ..	Beef, roasting	12.3	16.9	22.8	Beef		
Pound ..	Beef, corned	09.7	10 5	17 8	Beef		
Pound ..	Mutton	12.1	21.1	19 5	Mutton ..		
Pound ..	Pork, salted	12	11.8	17.6		Pork	
Pound ..	Pork, bacon	13.7	17.	17.2	Bacon		
Pound ..	Lard	12.4	12.4	18.6	Lard		
Pound ..	Butter	25.8	30.2	34.7	Butter		
Pound ..	Cheese	17.	14 5	16.			Cheese
Bushel ..	Potatoes	45 8	74.7	66.	Potatoes ..		
Quart ..	Milk	05.8	07.1	07.3	Milk		
Dozen ..	Eggs	17.4	36.	39.	Eggs		
	<i>Fuel.</i>						
Bushel ..	Coal	11.8	24.8	12.1	Coal		

This comparison, so far as it goes, is interesting as showing lower prices in general for standard articles of food in Illinois, than in either Massachusetts or Great Britain. Especially is this noticeable in breadstuffs and meats. In regard to tea and coffee, while there may be an element of uncertainty as to the respective qualities referred to, yet the English prices are those reported as paid by the working classes, and as such are conspicuously higher than those paid by the corresponding class in this country. The price of coal is virtually the same in Illinois and Great Britain, for the common reason that they are both coal-producing localities; while it is much higher in Massachusetts owing to necessary transportation charges. The coal used in the latter State, however, is the anthracite coal of Pennsylvania, which is superior in quality to that of either Illinois or Great Britain. The average price of anthracite coal in this State would be found to be higher than in Massachusetts, but there is little of it used here among people of small means, and our figures refer to the native bituminous coals. The anomalous fact that such

articles as kerosene, codfish and New Orleans molasses are lower in Great Britain than in this country will doubtless be observed, but the reasons for it are not readily apparent.

This comparison in prices of food supplies and fuels is not, however, conclusive as to the relative cost of living, as the outlay for these objects constitutes only a little more than half the entire family expense. To perfect the comparison it would be necessary to consider the relative prices paid, here and elsewhere, for shelter and clothing, the exact data for which are wanting. We have previously shown, however, that the percentage of income paid for rents in this country is about 50 per cent. greater than in Europe, and that that for clothing is also somewhat greater, which, in the absence of the specific prices of articles, may be accepted as indicating a higher cost for those factors in the expense of living, for this State and country.

Mr. Carroll D. Wright, Chief of the Massachusetts Bureau, has of late made, with characteristic power of analysis, some fundamental deductions, from a mass of pertinent data, as to the ratio existing between the cost and character of the living afforded workmen in Massachusetts and in Great Britain. His conclusions are carefully wrought out from the best statistical information obtainable, due allowance being made for all qualifying circumstances, and they constitute the best product of statistical enquiry on this subject. We introduce them here as suitably supplementing the foregoing notes and tables on the same subject.

The results arrived at are concisely stated as follows:

“That the Massachusetts workingman expends 48.41 per cent. more for the support of his family than the workingman in Great Britain. Of this, 5.80 per cent. is paid extra for articles which could be purchased that much cheaper in Great Britain; 11.49 per cent. is paid extra to secure more and larger rooms and more air space than the workingman in Great Britain enjoys; while the remainder, 31.12 per cent., indicates also an extra amount expended by the Massachusetts workingman to secure better home surroundings and maintain a higher standard of living than that secured by the workingman in Great Britain.”

In other words, while the Massachusetts workingman expends 48.41 per cent. more for the support of his family, he supports them 42.61 per cent. better, leaving only 5.80 per cent. of the greater cost

of living chargeable to higher prices in Massachusetts. Our own tables enable us to trace some analogous comparisons between Illinois and both Massachusetts and Great Britain.

Mr. Wright, in the pursuit of his investigations, procured the statements of 19 typical families of workingmen in Massachusetts, and of 16 typical families of the same general class in Great Britain. From these he compiled comparative tables, showing the relative earnings and expenses, and an analysis of the expense accounts for the two groups. In order to bring the experience of workingmen in Illinois into this comparison, we select, not families, but groups of families, representing 20 of the principal occupations pursued by workingmen in this State. These 20 groups contain a total of 1,373 families, and the average earnings and cost of living of each group are tabulated to correspond with the arrangement for Massachusetts and Great Britain. In this case, the average experience of a large number of families in each occupation is given as the unit in the table, instead of the statements of single families. This gives us the following exhibit for Illinois, based upon the financial statements of 1,373 families.

TABLE V.—*Earnings and Expenses of Twenty Representative Groups of Illinois Workingmen.*

OCCUPATIONS.	No. of families....	Average number in family.....	Average earnings of head of family	Average earnings of members of family.....	Total earnings....	Total expenses ...	Average surplus..
Blacksmiths	75	4.66	\$622 35	\$53 77	\$676 12	\$539 97	\$136 15
Bricklayers.....	46	4.26	637 60	61 57	699 17	600 80	98 37
Butchers	27	5.07	514 70	43 60	558 30	469 93	88 38
Cabinet makers.....	15	3.87	466 13	69 60	535 73	463 46	72 27
Carpenters.....	111	4.43	552 44	72 85	625 29	532 73	92 56
Cigar makers.....	79	3.88	492 42	84 94	577 36	527 70	49 66
Coal miners.....	232	4.98	385 43	85 70	471 13	435 87	35 26
Coopers.....	22	5.23	432 18	52 09	484 27	474 05	10 22
Engineers (Loc. and Stat'y)	42	4.53	742 31	45 69	788 00	635 50	153 50
Harness makers.....	31	3.87	547 52	58 06	605 58	548 26	57 32
Laborers	397	4.57	344 59	69 03	414 02	388 38	25 64
Machinists.....	35	4.57	661 37	10 23	671 60	563 23	108 37
Moulders.....	49	4.31	712 04	32 15	744 19	622 48	121 71
Painters.....	62	4.19	503 10	29 43	532 53	485 61	46 92
Plasterers.....	23	4.73	625 69	27 35	653 04	595 52	57 52
Printers	26	3.81	654 56	49 02	703 58	647 04	56 54
Shoemakers.....	32	5.41	467 40	36 63	504 03	458 41	45 62
Stone cutters.....	28	4.64	627 07	89	627 96	559 54	68 42
Tinners.....	21	5.00	594 57	35 33	629 90	535 64	94 26
Wood machinists.....	20	3.85	739 50	14 00	753 50	627 00	126 50
Averages.....	1,373	4.49	\$566 15	\$46 61	\$612 76	\$535 55	\$77 21

We find here an average family of 4.49 persons, the head of which earns \$566.15, the other members \$46.61, and the whole family \$612.76 per annum. Out of this there is paid for the maintenance of the family \$535.55, leaving an average surplus for the year of \$77.21. Expressed in percentages, the workingman in Illinois earns 92 per cent of the family income, and other members of the family 8 per cent. Of the combined earnings, 87 per cent. is expended for the support of his family, and 13 per cent. constitutes his surplus. The companion table for Massachusetts is as follows:

TABLE VI.—*Showing the Earnings and Expenses of Nineteen Representative Families of Massachusetts Workingmen.*

NUMBER OF PERSONS—		Earnings of heads of family.	Earnings of members of family.	Total earnings.	Total expenses.	Surplus or debt.
In family.	At work.					
6	2	\$616 00	\$224 00	\$840 00	\$661 00	+\$179 00
6	3	572 00	364 00	936 00	936 00	.....
4	1	616 00	300 00	616 00	649 00	—33 00
6	3	624 00	390 00	1,014 00	1,014 00	.....
6	2	450 00	156 00	606 00	432 00	+174 00
7	3	390 00	456 00	846 00	846 00	.....
6	3	385 00	358 00	743 00	743 00	.....
6	3	416 00	195 00	611 00	611 00	.....
6	2	520 00	184 00	704 00	653 00	+51 00
6	3	608 00	282 00	890 00	890 00	.....
6	2	624 00	300 00	924 00	924 00	.....
3	2	520 00	780 00	1,300 00	1,185 00	+115 00
5	2	614 00	260 00	874 00	874 00	.....
3	1	1,040 00	.....	1,040 00	834 00	+206 00
2	2	520 00	260 00	780 00	540 00	+240 00
6	2	494 00	156 00	650 00	650 00	.....
4	2	470 00	156 00	626 00	626 00	.....
5	2	520 00	130 00	650 00	650 00	.....
6	1	616 00	.....	616 00	616 00	.....
5.21	2.15	\$558 68	\$244 79	\$803 47	\$754 42	\$49 05

Here is an average family of 5.21 persons, the head of which earns \$558.68, the other members \$244.79, and the whole family \$803.47, per annum. From this is paid, for total family expenses, \$754.42, leaving a surplus of \$49.05. In this case the head of the family earns 70 per cent., and the other members 30 per cent., of the family income, and 94 per cent. of it is absorbed in the support of the family, leaving a surplus equal to 6 per cent. of the total earnings.

The difference in the aggregate earnings, noticed here, is of less significance than might at first appear, as the Massachusetts average for earnings, if based upon as large a number of families as that of Illinois, would doubtless be materially reduced. As it is, however, the excess in Massachusetts is not in the earnings of the head of the family, which is really somewhat less than in Illinois,

but in the earnings of wives and children, from whom the Massachusetts workingman receives more than five times as much assistance as the Illinois workingman. But admitting that the combined earnings of the average workingman's family in Massachusetts is 81 per cent. greater, as appears above, than that of the average family in this State, his family expenses, on the other hand, are 41 per cent. greater, and the net surplus of the Illinois workingman is a sum equal to 12.60 per cent. of his income, while that of the same class in Massachusetts is only 6.11 per cent. of the income,—the amount of the Illinois surplus being, however, 57 per cent. greater than that in Massachusetts, and not twice as large, as the percentage might indicate.

The statements of workingmen, procured by the agents of the Massachusetts bureau in Great Britain, are embodied in the following table:

TABLE VII.—*Showing the Earnings and Expenses of Sixteen Representative Families of Workingmen in Great Britain.*

NUMBER OF PERSONS—		Earnings of heads of family.	Earnings of members of family.	Total earnings.	Total expenses.	Surplus or debt.
In family.	At work.					
6	1	\$282 24	.....	\$282 24	\$282 24	.....
5	3	126 52	\$666 64	793 16	647 18	+\$145 98
5	3	243 30	209 24	452 54	452 64	.....
4	2	277 36	101 21	378 57	378 57	.....
7	3	326 02	192 21	518 23	518 23	.....
7	2	227 73	89 56	316 29	316 29	.....
6	3	253 03	253 04	506 07	506 07	.....
8	4	201 96	310 62	512 58	632 54	.....
7	3	248 17	327 49	575 66	575 66	.....
6	2	417 50	151 82	569 32	569 32	.....
8	3	394 01	272 50	671 51	671 51	.....
5	3	402 27	321 16	723 43	723 43	.....
6	3	301 69	128 95	430 64	430 64	.....
6	1	379 55	.....	379 55	379 55	.....
4	2	311 59	88 56	400 15	400 15	.....
7	3	379 55	180 04	559 59	559 59	.....
6.06	2.56	\$309 84	\$207 62	\$517 47	\$508 35	\$9 12

The average size of family in this instance is 6.06 persons,—a materially larger family than is found in either of the preceding tables. The earnings, however, are smaller than in either case, being \$309.84 for the head of the family, \$207.62 for the other members, and \$517.47 for both. Of this amount, \$508.35 is expended for the support of the family, leaving a surplus of \$9.12. The head of the family earns 60 per cent. of the whole income; the other members 40 per cent. They expend, in even figures, 98 per cent. for maintenance, and save 2 per cent.

We have seen that Illinois workingmen as compared with those in Massachusetts require very much less assistance from their wives and children, and that the amount of their savings, in spite of apparently smaller earnings, is 57 per cent. greater.

As compared with the English workingmen our advantages in both these respects are still more marked. The workingman in Great Britain derives 40 per cent. of his income from the labor of wife and children, while in this State only 8 per cent. of the average income is derived from that source. He can save from the combined earnings of his family less than 2 per cent. of his total receipts, while workingmen in Massachusetts show an average saving of 6.11 per cent. of their incomes, and those in Illinois 12.60 per cent. of their incomes.

To present these results more forcibly to the eye, we give the following arrangement of the respective percentages:

CLASSIFICATION.	ILLINOIS.		MASSACHUSETTS.		GREAT BRITAIN.	
	Average.	Percent.	Average.	Percent.	Average	Percent.
Persons in family.....	4.49	.....	5.21	.....	6.06	.....
Total earnings.....	\$612 76	.....	\$803 47	.....	\$517 47	.....
Earnings of head of family.....	566 15	92.39	558 68	69.53	309 81	59.88
Earnings of members of family	46 61	7.61	244 79	30.47	207 63	40.12
Total expenses.....	535 55	87.40	754 42	93.89	508 35	98.24
Surplus.....	77 21	12.60	49 05	6.11	9 12	1.76

Referring to the deductions of Mr. Wright in regard to the relative standard of living among workingmen in Massachusetts and in Great Britain, and assuming that the higher standard obtains in Illinois equally with Massachusetts, we are led to the conclusion that, while the assistance demanded of wives and children by the average workingman in Great Britain is five times as great as that called for by the necessities of workingmen in Illinois, and the average savings of the latter is eight times as much as that of the former, the Illinois workingman enjoys a mode of life, in his home surroundings and general standard of living, 42.60 per cent. better than his neighbor in Great Britain, or, as expressed in direct ratio by Mr. Wright, the standard of living of Illinois workingmen, assuming it to be equal to that in Massachusetts, is to that of the workingmen of Great Britain as 1.42 to 1., while the cost of it absorbs less of the income, and leaves more of an average surplus.

This introduction of comparisons however is regarded as of incidental interest, rather than as a conclusive argument. The question of practical concern is not so much whether the condition of the industrial classes here is better or worse than in other countries, or other sections of this country. It is whether that condition is good enough, whether it is what the spirit of the age demands, and the natural abundance here of the good things of life should lead the people to expect. As long as it is less than that, no matter of public concern is of graver import than this, and measures for the well being of the classes upon whom the whole superstructure of society rests, should receive no secondary consideration.

CHAPTER VI.

HOURS OF LABOR IN ILLINOIS.

In Part I of this report there are various tables showing the number of months in which the manufacturing establishments of the State were in active operation during the census year, also the number of months in which they were run on full time, or less than full time, and, in the same connection, the hours of daily labor of employés in those establishments. From these are deduced the average working time per annum for the different industries, and the average number of hours worked daily by different classes of workmen. The facts thus tabulated are derived from the official returns of manufacturers to the Federal Government, and are regarded as statistically true of the State at large for that year.

As a supplementary contribution on the same general subject of the hours of labor prevalent in Illinois, the data for which originates with the employé, instead of the employer, we have compiled from records in our possession the facts as to the actual number of hours worked per day, and the number of weeks worked per year, by 2,129 workingmen of various trades and places, for the year 1883-4. These facts are shown in averages for occupations, and, in connection with the hours and weeks of labor, the average weekly wages and annual earnings for each class are given. The following table will consequently be found to possess important data upon the subject of hours and earnings in Illinois:

TABLE I.—Showing Average Hours Worked per Day, and Weeks Worked per Annum, together with Weekly and Annual Earnings of different classes of Workingmen.

OCCUPATIONS.	Number of families.....	AVERAGE HOURS WORKED PER—			Average weeks worked per annum.....	Average weekly wages.....	Average annual earnings of head of family.....
		Day in winter..	Day in summer..	Year.....			
Bakers.....	14	11½	12	10 75	50	\$9 60	\$480 00
Barbers.....	18	12½	13	12 75	51	11 54	540 00
Baggagemen.....	5	12	12	12.	52	10 38	540 00
Boilermakers.....	9	9	10	9 50	47	14 36	675 00
Boilermakers' helper.....	1	10	10	10.	50	8 00	400 00
Bookbinders.....	2	11	5	8.	52	16 00	832 00
Blacksmiths.....	75	9	10	9 50	46	13 65	628 00
Blacksmiths' helpers.....	7	9	10	9 50	49	9 40	461 00
Brakemen.....	5	9½	9½	9 50	45	11 28	508 00
Bookkeepers.....	5	9	9	9.	51	16 70	852 00
Brass workers.....	6	10	10	10.	36	14 50	522 00
Brewers.....	5	11	11	11.	51	12 56	611 00
Bricklayers.....	46	6	11	8 50	33	19 30	637 00
Brick makers.....	5	3	10	6 50	33	10 73	404 00
Bridge builders.....	5	9	10	9 50	43	18 65	802 00
Bridge tenders.....	2	8	15	11 50	52	10 38	540 00
Broom makers.....	3	9	10	9 50	51	11 78	601 00
Burnisher.....	1	9	10	9 50	50	9 00	450 00
Butchers.....	27	11	12	11 50	47½	10 90	518 00
Cabinetmakers.....	15	8	10	9.	45	10 44	470 00
Cager.....	1	10	10	10.	50	15 10	755 00
Calcliminer.....	1	10	10	10.	52	9 00	468 00
Caller.....	1	11	11	11.	52	9 00	468 00
Car builders.....	5	9	11	10.	47	8 87	417 00
Car inspectors.....	6	9	10	9 50	49	12 57	616 00
Car painters.....	2	9	10	9 50	42	11 09	466 00
Car repairers.....	8	10	11	10 50	50	10 94	547 00
Carpenters.....	111	8	10	9.	42	13 26	557 00
Carriage workers.....	5	11	11	11.	49	10 44	512 00
Carriage ironers.....	2	9	10	9 50	46	15 45	711 00
Carriage painters.....	7	8	11	9 50	43	11 53	496 00
Carriage trimmers.....	4	8	10	9.	46	14 34	640 00
Catcher.....	1	11	11	11.	37	30 00	1,110 00
Cigar makers.....	79	8	9	8 50	45	10 83	490 00
Cigar packers.....	2	6	8	7.	46	11 08	510 00
Clerks.....	46	11	11	11.	51	13 15	671 00
Coal miners.....	232	9	9½	9 25	36	10 69	385 00
Conductors (freight).....	2	10	10	10.	52	18 57	966 00
Coopers.....	22	10	10	10.	42	11 02	463 00
Curriers.....	7	9	10	9 50	43	13 30	572 00
Ditchers.....	3	9	10	9 50	34	15 76	526 00
Draughtsmen.....	3	9	9	9.	52	16 55	861 00
Electrician.....	1	10	10	10.	15	53 33	800 00
Engineers (locomotive).....	12	10	10	10.	51	21 09	1,076 00
Engineers (stationary).....	30	9	11	10.	43	13 06	627 00
Express agent.....	1	14	14	14.	52	13 84	720 00
Express drivers.....	7	10	11	10 50	51	12 72	649 00
Farm hands.....	2	8	12	10.	52	6 11	318 00
Firemen (locomotive).....	16	10	10	10.	49	13 22	648 00
Firemen (stationary).....	9	11	11	11.	49	10 30	505 00
Fisherman.....	1	10	10	10.	51	12 00	612 00
Flagmen.....	4	11	12	11 50	52	6 86	357 00
Flour packers.....	3	11	11	11.	53	11 25	585 00
Foremen.....	15	10	11	10 50	48	20 20	974 00
Furnacemen.....	4	11	11	11.	51	11 25	574 00
Gardener.....	1	10	10	10.	42	9 04	380 00
Gilder.....	1	10	10	10.	50	14 40	720 00
Glass blowers.....	3	9	9	9.	38	22 76	865 00
Grinders.....	4	9	10	9 50	44	13 86	610 00

Table I.—Continued.

OCCUPATIONS.	Number of fam- ilies.....	AVERAGE HOURS WORKED PER—			Average weeks worked per an- num.....	Average weekly wages.....	Average annual earnings of head of family.....
		Day in winter....	Day in summer..	Year.....			
Harness makers.....	31	9	10	9.50	48	\$11 29	\$542 00
Heater, (bar mill).....	4	11	11	11.	37	39 75	1,471 00
Heater, (foundry).....	1	11	11	11.	40	30 00	1,200 00
Helpers in shop.....	3	9	10	9.50	46	9 69	446 00
Hod carriers.....	3	8½	10	9.25	41	13 29	545 00
Horseshoe maker.....	1	10	10	10.	40	14 50	580 00
Horse shoer.....	1	10	10	10.	50	18 00	900 00
Hostlers.....	3	11	12	11.50	52	9 15	476 00
Iron and steel workers.....	13	9	11	10.	38	19 87	755 00
Janitors.....	4	10	11	10.50	52	13 86	721 00
Laborers.....	397	9	10	9.50	41	8 46	347 00
Laborers, (railroad).....	16	8	10	9.	41	9 02	370 00
Laborers, (coal mine).....	19	10	10	10.	40	11 30	452 00
Lard renderer.....	1	11	11	11.	52	10 50	546 00
Lather.....	1	8	10	9.	36	16 50	594 00
Laundrymen.....	2	8	11	9.50	51	12 75	600 00
Lead miners.....	2	10	10	10.	43	9 21	397 00
Lumber handlers.....	7	9	10	9.50	48	9.33	448 00
Machinists.....	35	9	10	9.50	46	14 58	671 00
Machinists (railroad).....	7	9	10	9.50	46	12 63	581 00
Machine miners.....	4	10	10	10.	49	14 20	696 00
Malsters.....	5	12	12	12.	45	13 42	604 00
Marble workers.....	17	9	10	9.50	47	11 97	563 00
Master mechanics.....	2	10	10	10.	52	26 65	1,386 00
Mattress maker.....	1	8	9	8.50	30	14 66	440 00
Millers.....	16	11	11	11.	48	18 16	872 00
Millwrights.....	2	10	10	10.	45	13 33	600 00
Moulders.....	49	9	10	9.50	44	15 95	702 00
Monument setter.....	1	9	10	9.50	52	11 53	600 00
Mule drivers.....	3	10	10	10.	41	12 09	496 00
Nailers.....	7	10	10	10.	36	39 16	1,410 00
Nail-plate shearer.....	1	8	8	8.	35	14 08	493 00
Organ builders.....	2	8½	10	9.25	38	15 78	600 00
Omnibus driver.....	1	10	10	10.	52	9 25	480 00
Painters.....	62	7½	10	8.75	41	13 68	561 00
Paper carriers.....	2	10	10	10.	52	7 00	364 00
Paper hangers.....	6	6	10	8.	36	16 30	587 00
Paper maker.....	1	10	10	10.	46	12 00	552 00
Pattern makers.....	9	9	10	9.50	51	15 78	805 00
Piano makers.....	2	10	10	10.	52	13 69	712 00
Picture-frame makers.....	2	11	11	11.	51	15 00	765 00
Pit bosses.....	6	10	10	10.	50	13 96	695 00
Pit sinkers.....	2	5	11	8.	27	14 55	393 00
Pit-top men.....	2	10	11	10.50	38	8 60	327 00
Plasterers.....	23	7	10	8.50	34	19 03	647 00
Plow-factory men.....	7	9	10	9.50	44	15 53	684 00
Plumbers.....	10	8	10	9.	44	16 13	710 00
Potters.....	4	5	10	7.50	36	11 13	401 00
Pressmen.....	2	10	10	10.	52	18 00	936 00
Printers.....	26	10	10	10.	47	13 89	653 00
Prison guard.....	1	13	13	13.	52	10 38	540 00
Puddlers.....	4	11	11	11.	30	26 20	786 00
Puddlers' helpers.....	1	10	10½	10.25	35	15 42	504 00
Quarrymen.....	5	9	10	9.50	36	14 16	510 10
Rag sorter.....	1	10	10	10.	52	4 61	240 00
Refiner (gas).....	1	10	10	10.	52	14 03	730 00
River pilot.....	1	.....	12	12.	30	28 00	840 00
Rollers.....	5	11	11	11.	39	41 23	1,608 00
Rolling-mill hands.....	5	11	11	11.	40	10 50	420 00
Roughers.....	2	11	11	11.	37	30 00	1,110 00

Table I.—Continued.

OCCUPATIONS.	Number of fam- ilies.....	AVERAGE HOURS WORKED PER—			Average weeks worked per an- num.....	Average weekly wages.....	Average annual earnings of head of family.....
		Day in winter.....	Day in summer..	Year.....			
Salt maker.....	1	15	15	15.	52	\$15 00	\$780 00
Saw filer.....	1	9	10	9.50	44	13 29	585 00
Sawyers.....	8	8	10	9.	47	11 57	544 00
Seamen.....	2	8	10	9.	30	12 66	380 00
Section bosses.....	5	10	10	10.	51	11 76	600 00
Section men.....	13	9	10	9.50	46	6 82	314 00
Sheet-iron worker.....	1	8	10	9.	52	11 53	600 00
Shoemakers.....	32	10	10	10.	50	10 04	502 00
Silver plater.....	1	8	10	9.	18	17 89	322 00
Shooter (coal).....	1	10	10	10.	45	16 00	720 00
Sodawater maker.....	1	10	10	10.	52	15 00	780 00
Spinner.....	1	10	10	10.	30	9 00	270 00
Stair builder.....	1	9	10	9.50	52	11 61	604 00
Station agents.....	4	12	12	12.	51	14 41	735 00
Stone masons.....	19	5	9	7.	31	18 80	583 00
Stone cutters.....	28	5	10	7.50	35	17 97	629 00
Stove mounters.....	2		10	10.	33	12 42	420 00
Street-car conductors.....	10	15	15	15.	50	13 94	697 00
Street-car drivers.....	11	14	14	14.	49	13 02	638 00
Switchmen.....	3	10	10	10.	52	11 93	623 00
Tailors.....	16	10	11	10.50	45	12 06	543 00
Telegraphists.....	3	11	10	10.50	51	15 31	781 00
Teamsters.....	66	9	11	10.	46	10 91	502 00
Tilemakers.....	3	9	10	9.50	51	9 02	460 00
Tinners.....	21	8	10	9.	49	12 00	588 00
Toymaker.....	1	10	10	10.	50	7 50	375 00
Trackmen.....	6	10	10	10.	48	13 10	629 00
Train despatcher.....	1	12	12	12.	52	20 76	1,080 00
Trunkmakers.....	5	10	10	10.	49	14 34	703 00
Upholsterers.....	9	8	10	9.	43	11 07	476 00
Wagonmakers.....	12	9	10	9.50	47	11 87	558 00
Waiter.....	1	12	12	12.	50	7 02	360 00
Watchfactory operatives.....	3	10	10	10.	50	12 50	625 00
Watchmakers.....	4	9	9	9.	51	13 03	665 00
Watchmen.....	7	11	11	11.	51	12 07	616 00
Weaver (carpet).....	1	10	10	10.	52	6 01	313 00
Weighers.....	2	10	10	10.	40	12 05	482 00
Welldigger.....	1		10	10.90	42	15 00	630 00
Woodmachinists.....	20	9	10	9.50	48	14 62	702 00
Woodworkers.....	17	9	11	10.	48	15 23	731 00
Wiper (Loc).....	5	11	11	11.	49	7 44	365 00
Wire-fence maker.....	1	10	10	10.	39	9 00	351 00
Yardmasters.....	3	12	12	12.	52	18 07	940 00
Yardmen.....	2	10	10	10.	52	9 00	468 00
Totals.....	2,129				43.47	\$13 87	\$602 85
Averages.....		9.41	10.43	9.90			

An inspection of this table will give us for each of 163 occupations, the average number of hours worked per day in winter and in summer, and the average for the year; the number of weeks worked during the given year by the several classes, and the average weekly and annual earnings for the same. Consulting the final averages, it is seen that substantially 10 hours constitute a day's work,—the average for all classes being 9.41 hours per day in winter, 10.43 hours in summer, and 9.90 hours for the year.

The noticeable variations from these standard hours are not many, but the most conspicuous example of long daily service is in the street car employments. In these, the hours given by employes in Chicago range from 12 to 16 hours, by far the greater number being obliged to work 16 hours, as the average indicates. In Danville and Aurora men of this class work 14 hours a day, which is probably true of other cities of that size. Other classes who work more than 10 hours a day are bakers, barbers, butchers, clerks, malsters, millers, rolling mill employes, and railroad men, while cigar makers, glass blowers, stone masons, and others work less than 10 hours.

With some, however, the hours of labor are in a measure optional, and others who report long working days are not continuously employed. Of the former class are coal miners, who are paid by the ton. In the more extensive mines where large numbers are employed, regular hours for beginning and quitting work are established, but in a greater number of places the miner comes and goes at will. It is true, however, that he is usually eager to work, and that it is the irregularity of his employment quite as much as the smallness of his pay which keeps him poor. It will be observed that the average number of weeks worked during the year by this class is only 36, which is equivalent to about two-thirds time, and that their weekly earnings are not so much below those of others as their yearly earnings are.

A very important factor in this consideration of relative wages, is the amount of time devoted by the several classes to the earning of those wages; and we consequently produce in this table columns showing the average number of weeks in which each class has had employment, and the average weekly and yearly earnings which have resulted from it. Our average working time for all classes, it will be seen, is 43.47 weeks in the year, or allowing one week for holidays 85+ per cent. of full time. The average of weekly earnings is found to be \$13.67,—the range being from \$6 to \$53 a week, and the average annual earnings of all classes, \$602.85.

Considered in detail this feature of the table presents many points of interest, and sheds additional light on previous tables. The comparatively small earnings of brass workers, for instances, \$522 per annum, will be found to be more the result of lost time, than of small wages, which latter average \$14.50 per week, and which at full time would make their annual earnings \$754. Bricklayers on

the other hand earn \$637 with 33 weeks' work, or \$19.30 per week, and plasterers get 34 weeks' work at \$19.03. The catcher in an iron mill makes \$1,116 with 37 weeks' work, or \$30 per week. Glass blowers earn \$865, but this is for 38 weeks' work, or \$22.76 per week.

Heaters, puddlers, rollers, roughers, nailers and men of that class all show not only large weekly wages, but also short time; while day laborers work an average of 41 weeks in the year for \$8.46 per week, or \$347 per year. The contrast in the condition of these and other classes is not only in the amount of their earnings, but the poorly paid worker usually has much the most labor to perform for what little he does get.

Machinists have 46 weeks' work in the year, at an average of \$14.58 per week, and printers average 47 weeks' work at an average of \$13.89 per week. Railroad sectionmen get plenty of work, 46 weeks, but the smallest pay in the list, \$5.82 per week. Shoemakers work almost continually at an average of \$10.04 per week, and tailors average 45 weeks at \$12.06. Tanners work 49 weeks at an average wage of \$12, and wood machinists 48 weeks at \$14.62.

The cases cited, and the table as a whole, illustrate and emphasize the importance of presenting all the facts, in any statement relating to economic conditions. Too much care can not be exercised in avoiding errors either of statement or inference in statistical work of any kind, and this is only possible when due weight is given to every modifying circumstance. It is simple enough to compute averages from any given data, but the value of them for purposes of comparison or legitimate deduction must depend upon the uniformity and comprehensiveness of the conditions given.

Hence, in making up this series of tables relating to the earnings and expenses either of individuals or classes, we have given the most careful scrutiny to the character of both, in the endeavor to present every phase of the situation.

We add to the details already presented, one more chapter on the condition of families, as shown by their home surroundings and habits, which will complete the delineation we have attempted for this State.

CHAPTER VII.

THE CONDITION OF FAMILIES.

In order to present a closer view of the manner of living, the surroundings, habits, tastes and daily diet of the Illinois working-man of to-day, under various circumstances and conditions, and to afford a more definite impression as to the details of his environment than can be obtained from the mere contemplation of columns of figures, we transcribe, for a limited number of representative families, their entire record, as procured by our agents, together with the notes of observation, made at the time of the visit. It would be manifestly impracticable to reprint those details in regard to the whole 2,129 families, and we therefore confine the exhibit to 167 families, selecting them with special reference to their representative character, from various places, occupations and walks in life. We, however, give prominence to reports from Chicago, because of the greater interest which will naturally attach to the phases of life shown in that populous metropolis. The first one hundred cases are accordingly selected from the Chicago returns, and the remainder are from various places in the interior of the State, the specific designation of which is omitted, in order to avoid the identification of individuals.

The points of information given here in regard to each family are,—the nationality, occupation and annual earnings of the father, the earnings of other members of the family, the number, age, sex and status of children, the character of the home and of its surroundings and furniture, the articles of food usually had for the several meals, and finally the specific items of expense incurred in supporting the family for the year.

This minute catalogue of the details governing the life of each family portrays more vividly than any mere array of figures can the common current of daily life among the people. The extremes of condition and the average types are alike presented, and it may be seen, not only what manner of life ordinarily prevails with a given

income, but also how some families, by thrift, temperance and prudence, save money and increase their store, upon earnings which other families find insufficient for their support.

The rewards which some of the skilled trades offer to those who succeed in them appear in contrast with the disabilities which accompany other occupations, and it will be seen how workmen in the same trades both prosper and suffer, as men will in all walks of life, with apparently equal opportunities.

This presentation will close the detailed exposition of the status of the workingman in Illinois, and the exhibit here made is commended to the consideration of those who desire the welfare of their kind, and those who may have the responsibilities of administering the affairs of the State.

CHICAGO.

No. 1.	BAKER.	Scandinavian.
EARNINGS —Of father.....		
		\$375
	Of daughter, aged eighteen.....	150
	Of son, aged fifteen.....	48
	Total.....	\$573
CONDITION —Family numbers 7—father, mother and five children, three girls and two boys. The girls aged eight, eleven and eighteen; boys, six and fifteen. Three of the children attend school regularly. The house they occupy contains four rooms, and they pay \$9 per month rent. The house is in an unhealthy and dirty locality, furnished very poorly, and kept in poor condition. The children, when out of school, pick fuel from the railroad tracks and accompanying lumber yards. The family are very ignorant, and live as the generality of the Swede race. Life insurance and trades unions are ignored.		
FOOD — <i>Breakfast</i> —Coffee, bread, syrup.		
<i>Dinner</i> —Lunches, always.		
<i>Supper</i> —Meat, soup and bread.		
COST OF LIVING —		
	Rent.....	\$108
	Fuel.....	12
	Meat and groceries.....	200
	Clothing, boots and shoes, and dry goods.....	150
	Books, papers, etc.....	3
	Sundries.....	50
	Total.....	\$523

No. 2.	BAKER.	Pole.
EARNINGS —Of father.....		\$450
CONDITION —Family numbers 5—parents and three children, all girls, aged one month, eighteen months and four years. Rent a house containing three rooms, for which they pay a rental of \$8 per month. Family are very ignorant, dirty and unkempt. The street is narrow and filthy; no pavement; mud knee-deep; no vaults or sewerage. Father works fifty weeks per year, and for a winter day's work he is employed twelve hours, and in summer fourteen. He receives \$1.50 for each day's labor. His house is situated so far from his place of work that he cannot go home at noon. Carries no life insurance, and belongs to no unions.		
FOOD — <i>Breakfast</i> —Coffee, bread and crackers.		
<i>Dinner</i> —Soup, meat and potatoes.		
<i>Supper</i> —What is left from dinner.		
COST OF LIVING —		
	Rent.....	\$96
	Fuel.....	15
	Meat and groceries.....	165
	Clothing, boots and shoes and dry goods.....	70
	Books, papers, etc.....	3
	Sickness.....	40
	Sundries.....	65
	Total.....	\$454

CONDITION OF FAMILIES.

359

No. 3.	BAKER.	Dane.
EARNINGS —Of father.....		
	Of son, aged eighteen.....	\$375
	Total.....	300
		\$675
CONDITION —Family numbers 4—parents and two children, boy and girl, aged, respectively, eighteen and eleven years. The girl attends school. Family occupies house containing 3 rooms, for which payment of \$7 per month rent is made. House is in unhealthy locality, poorly furnished; no carpets in any of the rooms. Wife is, however, clean and neat. The little girl is intelligent. Family attend church. The neighborhood is very unhealthy. Father receives only \$1.25 per day for his work. He does not carry any life insurance, and belongs to no trades union.		
FOOD — <i>Breakfast</i> —Coffee, crackers, bread and molasses.		
<i>Dinner</i> —Soup, crackers, etc.		
COST OF LIVING —		
	Rent.....	\$84
	Fuel.....	12
	Meat and groceries.....	300
	Clothing and boots and shoes.....	150
	Books, papers, etc.....	2
	Sickness.....	40
	Sundries.....	30
	Total.....	\$618

No. 4.	BAKER.	German.
EARNINGS —Of father.....		
	Of son, aged sixteen.....	\$450
	Total.....	150
		\$600
CONDITION —Family numbers 5—father, mother and three children, all boys, aged sixteen, eleven and thirteen years. Two of them attend public school. They live in three small rooms in rear part of a large house, which are very dark and dirty, and for which they pay \$11 per month. The whole family seem to be very ignorant, and are unable to speak any English. Father works fifty weeks in the year, at an average of \$1.50 per day. He does not belong to any union and carries no life insurance. If it were not for the assistance rendered by the oldest son, their expenses would exceed their earnings.		
FOOD — <i>Breakfast</i> —Bread, coffee and crackers.		
<i>Dinner</i> —Soup, meat and potatoes.		
COST OF LIVING —		
	Rent.....	\$132
	Fuel.....	15
	Meat and groceries.....	300
	Clothing, boots and shoes and dry goods.....	100
	Books, papers, etc.....	3
	Sickness.....	20
	Sundries.....	10
	Total.....	\$580

No. 5.	BLACKSMITH.	American.
EARNINGS —Of father.....		
		\$864
CONDITION —Family numbers 5—parents and three girls aged twelve, nine and five years, and all three attend the public schools. They rent a pleasant house containing six rooms, in healthy locality, for which they pay \$15 per month. House is neatly kept and nicely furnished and carpeted. Have piano and sewing machine. Family neatly dressed and members of the church. They were fortunate in not having any sickness whatever in the family during the past year. Father secures work forty-eight weeks in the year, at \$3 per day.		
FOOD — <i>Breakfast</i> —Bread, meat, sundries and coffee.		
<i>Dinner</i> —Meat, bread, vegetables, pie, tea, etc.		
<i>Supper</i> —Bread, cold meat, pie and tea.		
COST OF LIVING —		
	Rent.....	\$180
	Fuel.....	36
	Meat and groceries.....	345
	Clothing, boots and shoes and dry goods.....	210
	Books, papers, etc.....	15
	Sundries.....	10
	Total.....	\$796

No. 6.	BLACKSMITH.	German.
EARNINGS—Of father.....		\$450
CONDITION—Family numbers 7—parents and five children; three boys and two girls, aged from one to seven years. Two of them go to school. Occupy 4 rooms in tenement block, and pay \$12 per month for same. The surroundings are only fair. The rooms are carpeted, and family appear comparatively comfortable, but are not satisfied with their condition. Father belongs to the Labor organization and considers himself somewhat benefited thereby. He, however, is only able to secure work twenty-five weeks in the year, and receives \$3 per day for his work.		
FOOD— <i>Breakfast</i> —Bread, meat, butter and coffee. <i>Dinner</i> —Lunch at work; family at home, bread, tea, etc. <i>Supper</i> —Bread, butter, meat and coffee or tea.		
COST OF LIVING—		
Rent	\$144	
Fuel	40	
Meat and groceries.....	160	
Clothing, boots, shoes and dry goods.....	80	
Books, papers, etc.....	10	
Trades unions.....	5	
Sickness.....	10	
Sundries	25	
Total.....		\$474

No. 7.	BLACKSMITH.	Irish.
EARNINGS—Of father.....		\$918
CONDITION—Family numbers 6—parents and four children, two girls and two boys, sixteen, fourteen, seven and two years of age. Two of the children attend school regularly. Family occupy house containing 6 rooms, and pay \$15 per month rent for it. The house is comfortable and well furnished, and carpeted throughout. Everything has a homelike appearance. They have had but little sickness in the family during the year. Are members of a church. Father belongs to a trades union, but carries no life insurance. He secures work fifty-one weeks of the year, and receives \$3 per day for his services.		
FOOD— <i>Breakfast</i> —Bread, butter and coffee. <i>Dinner</i> —A good meal generally. <i>Supper</i> —Bread, butter and coffee.		
COST OF LIVING—		
Rent	\$180	
Fuel	80	
Meat.....	125	
Groceries.....	200	
Clothing.....	100	
Boots and shoes	18	
Dry goods.....	50	
Books, papers, etc.....	10	
Trades unions.....	10	
Sickness.....	20	
Sundries	5	
Total.....		\$798

No. 8.	BLACKSMITH.	American.
EARNINGS—Of father.....	\$900	
Of others of the family.....	624	
Total.....		\$1,524
CONDITION—Family numbers 9—parents and seven children, four girls and three boys, aged from three to twenty-one years, and three of them attend school. Family live in pleasant and comfortable cottage containing 6 rooms, for which a rental of \$25 per month is paid. Father works fifty weeks in the year and receives \$3 per day. With the help of others of the family, they manage to make both ends meet, and live comfortably. Hopes to see the day when they will receive what they deserve. As it is they indulge in no luxuries or amusements. Father belongs to no trades unions, and carries no life insurance.		
FOOD— <i>Breakfast</i> —Bread, meat and coffee. <i>Dinner</i> —Bread, meat, potatoes and desserts. <i>Supper</i> —Bread, meat and tea.		
COST OF LIVING—		
Rent.....	\$150	
Fuel	50	
Meat.....	200	
Groceries.....	600	
Clothing.....	200	
Boots and shoes.....	75	
Dry goods.....	100	
Books, papers, etc.....	10	
Sickness.....	70	
Sundries.....	60	
Total.....		\$1,515

No. 9.

BRICKLAYER.

Irish.

EARNINGS—Of father..... \$800

CONDITION—Family numbers 8—parents and six children, five girls and one boy, aged from one to twelve years. Three of them go to school regularly. The house they live in contains 4 rooms, and they pay \$10. per month for it. They would like to have more room, but the owners of the tenement do not wish to rent to families having many children. Father says he is satisfied with the general condition, if wages remain as good as they are at present. He belongs to trades union, but carries no life insurance. He works about 30 weeks in the year, and receives on an average \$4.00 per day for his services.

FOOD—*Breakfast*—Good common food.
Dinner—Good common food.
Supper—Good common food.

COST OF LIVING—	
Rent	\$120
Fuel	40
Meat	100
Groceries	325
Clothing	50
Boots and shoes	40
Dry goods	100
Books, papers, etc	2
Trades unions	3
Sickness	4
Sundries	20
Total	\$804

No. 10.

BRICKLAYER.

American.

EARNINGS—Of father \$864

CONDITION—Family numbers 7—parents and five children, three boys and two girls, aged from one to seven. One of them goes to school. The house they live in is divided into 5 rooms, and make monthly payments for the same, at the rate \$12.50. The house is fairly furnished, and surroundings are good. The family are intelligent and frugal, and attend church. The father works on an average more days each year than most bricklayers, having worked last year 36 weeks and received \$1 per day. He says his wages are 35 per cent. higher since the organization of the trades union.

FOOD—*Breakfast*—Bread, meat, vegetables and coffee.
Dinner—Bread, meat, vegetables and coffee.
Supper—Bread, meat, vegetables and coffee.

COST OF LIVING—	
Rent	\$150
Fuel	75
Meat and groceries	200
Clothing, boots and shoes and dry goods	200
Books, papers, etc.	15
Trades unions	5
Sickness	25
Sundries	50
Total	\$720

No. 11.

BRICKLAYER.

American.

EARNINGS—Of father..... \$600

CONDITION—Family numbers 2—husband and wife. Live in comfortable apartments of 4 rooms, and pay \$16 per month for same. Live in good neighborhood and, having no children, they have more of the comforts of life to themselves. The husband secures work for twenty-five weeks in the year, at about \$24 per week. He belongs to the trades union, and considers his wages better than before he was a member. They live well, but spend all the money they make.

FOOD—*Breakfast*—Bread, butter, vegetables, meat and coffee.
Dinner—Bread, butter, vegetables, meat and coffee.
Supper—Bread, butter, vegetables, meat and coffee.

COST OF LIVING—	
Rent	\$192
Fuel, meat, groceries	225
Clothing, boots and shoes and dry goods	100
Books, papers, etc	8
Trades unions	5
Sickness	10
Sundries	60
Total	\$600

No. 12.	BRICKLAYER.	American.
EARNINGS—Of father.....		\$1,050
CONDITION—Family numbers 7—parents and five children, three boys and two girls, aged from two to eleven years. Two of them attend school. The house they occupy contains 4 rooms, for which they pay rental of \$12 per month. Father says they would like to better themselves as regards the neighborhood, but if he moves farther from the center of the city he would be compelled to pay out too much money for car fare. He is a pressed-brick layer, which branch of the business requires greater skill, and therefore he receives \$1 per day more money than the regular bricklayer. He works thirty-five weeks in the year, at \$5 per day. The trades union is in first-class condition, but is overrun by apprentices. For ordinary living he uses all he makes.		
FOOD— <i>Breakfast</i> —Beefsteak, bread, butter and coffee. <i>Dinner</i> —Meat and vegetables. <i>Supper</i> —Bread, butter, tea and fruit.		
COST OF LIVING—		
Rent.....	\$144	
Fuel.....	50	
Meat.....	156	
Groceries.....	350	
Clothing.....	100	
Boots and shoes.....	50	
Dry goods.....	50	
Books, papers, etc.....	15	
Trades unions.....	3	
Sickness.....	10	
Sundries.....	122	
Total.....		\$1,050

No. 13.	CARPENTER.	Irish.
EARNINGS—Of father.....		\$540
Of son, aged twenty.....		300
Total.....		\$840
CONDITION—Family numbers 10—father, who is a widower, and nine children, seven girls and two boys, aged seven, thirteen, fourteen, sixteen, twins seventeen, eighteen, twenty and twenty-two years. Father owns the house they live in, which contains six rooms, which are comfortably furnished; three rooms carpeted; have sewing machine, and manage to live within their means, but to do so they are obliged to economise. One of the children attends school, and the older girls take care of the house. Father only had thirty weeks' work last year, and received \$3 per day. If it was not for the money the boy earns, they could not meet their expenses.		
FOOD— <i>Breakfast</i> —Bread, butter and coffee. <i>Dinner</i> —Bread, butter, meat, etc.		
COST OF LIVING—		
Fuel.....	\$32	
Meat and groceries.....	432	
Clothing, boots and shoes and dry goods.....	200	
Sickness.....	10	
Sundries.....	100	
Total.....		\$774

No. 14.	CARPENTER.	American.
EARNINGS—Of father.....		\$600
CONDITION—Family numbers 2—husband and wife, who is an invalid. They occupy a house containing 3 rooms, which they bought and are paying for in installments, and it is not entirely paid for as yet. If it were not for the money expended for medicines and doctor bills, they could save some money, but they only manage to keep about even. The husband receives \$2.50 per day, and works about forty weeks in the year.		
FOOD— <i>Breakfast</i> —Bread, butter, tea and milk. <i>Dinner</i> —Bread, butter, tea and milk. <i>Supper</i> —Bread, butter, tea, milk and meat.		
COST OF LIVING—		
Fuel.....	\$56	
Meat.....	109	
Groceries.....	175	
Clothing.....	60	
Boots and shoes.....	20	
Dry goods.....	30	
Books, papers, etc.....	4	
Sickness.....	175	
Total.....		\$629

No. 15.

CARPENTER.

American.

EARNINGS—Of father..... \$720

CONDITION—Family numbers 9—parents and seven children, four girls and three boys, aged from three months to ten years. Two of the children attend school. Family occupy house containing 5 rooms, for which they pay \$20 per month rent. The house is in a good neighborhood. The family are intelligent and attend church. Father works 50 weeks of the year, and receives \$2.40 per day for his labor. He pays \$50 per year car fare to and from his work. Belongs to no trades union and carries no life insurance.

FOOD—*Breakfast*—Bread, butter, meat and coffee
Dinner—Bread, meat, vegetables and coffee.
Supper—Bread, meat, vegetables and coffee.

COST OF LIVING—

Rent.....	\$240	
Fuel, meat and groceries.....	200	
Clothing, boots and shoes and dry goods.....	150	
Sickness.....	40	
Sundries.....	90	
Total.....	—	\$720

No. 16.

CARPENTER.

Scandinavian.

EARNINGS—Of father..... \$600

CONDITION—Family numbers 3—parents and one girl two years' old. They occupy 4 rooms in a good tenement house, for which they pay \$12 per month. The rooms are comfortably furnished, and by exercising the utmost economy they are able to save a little money each year. They have had no sickness in the family during the past year. Father works 50 weeks of the year, and receives an average of \$2 per day for his labor. Does not belong to trades union, and carries no life insurance.

FOOD—*Breakfast*—Good substantial food.
Dinner—Good substantial food.
Supper—Good substantial food.

COST OF LIVING—

Rent.....	\$144	
Fuel.....	25	
Meat and groceries.....	208	
Clothing, boots and shoes and dry goods.....	60	
Books, papers, etc.....	10	
Sundries.....	15	
Total.....	—	\$462

No. 17.

CARPENTER.

Irish.

EARNINGS—Of father..... \$790

CONDITION—Family numbers 4—parents and two children, two girls, eleven and thirteen years of age, and both attend school. They rent a comfortable cottage, containing 4 rooms, for which they pay \$18 per month. They live more comfortably than the average families in their condition. The father is fortunate in securing steady work the entire year, and what he loses on holidays and by sickness he makes up by working overtime. He has had regular work for several years with one firm. Family attends church. Father belongs to no organization.

FOOD—*Breakfast*—Bread, butter, ham and potatoes.
Dinner—Bread, butter, ham and potatoes.
Supper—Bread, butter, ham and potatoes.

COST OF LIVING—

Rent.....	\$216	
Fuel.....	65	
Meat.....	75	
Groceries.....	220	
Clothing.....	180	
Boots and shoes.....	25	
Dry goods.....	50	
Books, papers, etc.....	10	
Sickness.....	15	
Sundries.....	20	
Total.....	—	\$776

No. 18.

CARPENTER.

Irish.

EARNINGS—Of father..... \$607

CONDITION—Family numbers 8—parents and six children, three boys and three girls, ages not given. Two of the children attend public schools. Family occupy a house containing 4 rooms, for which they pay rent at the rate of \$7 per month. House is in healthy locality, but the surroundings are not very desirable. Family attend church. The parents take a great deal of interest in their children, and seem to live pleasantly and happily. Father carries no life insurance, and belongs to no trades organization.

FOOD—*Breakfast*—Bread, butter, meat, potatoes and coffee.*Dinner*—Bread, butter, meat and tea.*Supper*—Cold meat, vegetables, bread, butter, pie and tea.

COST OF LIVING—

Rent	\$84	
Fuel	60	
Meat.....	50	
Groceries	225	
Clothing.....	140	
Boots and shoes.....	20	
Dry goods.....	20	
Books, papers, etc	20	
Sickness	20	
Sundries	19	
Total		\$618

No. 19.

CARPENTER.

American.

EARNINGS—Of father..... \$500

CONDITION—Family numbers 5—parents and three children, one boy and two girls, aged respectively six, four and two years; one of these attends school. Family occupy house containing 4 rooms, for which they pay rent at the rate of \$12 per month. Father is industrious, and works when it is possible to obtain work. He is generally in debt, particularly last year, as he only secured work during forty weeks. He receives from \$2 to \$2.50 per day for his work. Had some sickness, which increased his indebtedness for the year.

FOOD—*Breakfast*—Bread, butter, coffee, potatoes and meat.*Dinner*—Bread, butter, coffee, potatoes and dessert.*Supper*—Bread, butter, tea, meat and cheese.

COST OF LIVING—

Rent	\$120	
Fuel	56	
Meat.....	120	
Groceries	200	
Clothing.....	75	
Boots and shoes.....	30	
Dry goods	50	
Books, papers, etc.....	10	
Sickness	30	
Total		\$691

No. 20.

CARPENTER.

German.

EARNINGS—Of father..... \$624

CONDITION—Family numbers 2—husband and wife. They live in a house containing 2 rooms, located in a good, pleasant and healthy part of the city. Have a nice garden, from which they get vegetables in season. They pay \$15 per month for the house, which is seemingly large rent for a house of 2 rooms, but the large yard and garden accounts for it. Husband works fifty-two weeks of the year, and receives an average of \$2 per day for his labor. He belongs to no trades organization, and carries no life insurance.

FOOD—*Breakfast*—Coffee, sausages, bread, etc.*Dinner*—Lunches.*Supper*—Tea, meat, potatoes, etc.

COST OF LIVING—

Rent	\$180	
Fuel	30	
Meat and groceries	250	
Clothing.....	40	
Boots and shoes.....	10	
Dry goods.....	15	
Books, papers, etc.....	5	
Sundries	70	
Total		\$600

No. 21.

CIGAR MAKER.

Bohemian.

EARNINGS—Of father	\$480	
Of son	750	
Of son	600	
Total	—	\$1,830

CONDITION—Family numbers 7—four boys and one girl. The boys pay for their board to their parents, clothe themselves, and otherwise aid in the support of the family. They occupy a house containing 6 rooms, for which they pay \$12 per month rent. The father is a member of the trades union, and considers himself and family benefited thereby. House is in healthy location, fairly furnished, with 3 of the rooms carpeted. With the assistance of the boys they are enabled to save a little money each year.

FOOD—*Breakfast*—Meat, coffee, bread, butter and potatoes.

Dinner—Meat, vegetables, soup, etc.

Supper—Cold meat, tea, bread and butter.

COST OF LIVING—

Rent	\$144	Dry goods	\$200
Fuel	80	Books, papers, etc.	20
Meat	100	Trades unions	12
Groceries	300	Sickness	75
Clothing	200	Sundries	100
Boots and shoes	60	Total	—
			\$1,291

No. 22.

CIGAR MAKER.

German.

EARNINGS—Of father	\$240	
Of son, aged sixteen	200	
Total	—	\$440

CONDITION—Family numbers 8—parents and six children, four boys, aged sixteen, fifteen, nine and six, and two girls, thirteen and two. Occupy house of 3 rooms, for which rent is paid at the rate of \$20 per month. House is scantily and poorly furnished, no carpets, and the furniture being of the cheapest kind. Wife attends to news stand and candy store, and, with the proceeds of this business added to what earnings father and son make, they manage barely to keep out of debt. House is in an unhealthy location and kept in a filthy condition, consequently children are sick at all times. Three children attending school. Father belongs to trades union, and says he is unable to procure steady work, and only works at "piece-work."

FOOD—*Breakfast*—Bread and plain coffee.

Dinner—Lunch.

Supper—Bread, meat and potato soup.

COST OF LIVING—

Rent	\$240	
Fuel	20	
Meat and groceries	364	
Clothing, boots and shoes and dry goods	150	
Trades unions	11	
Sickness	100	
Sundries	300	
Total	—	\$1,185

No. 23.

CIGAR MAKER.

French.

EARNINGS—Of father	\$790
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CONDITION—Family numbers 4—parents and two children, girl aged seven years and boy five. Live in house containing 6 rooms and pay for same rent at the rate of \$10 per month. Both children attend school. Father carries some life insurance and belongs to trades union, and claims his wages this year are increased thereby about \$200 over his wages of previous years, enabling them to live more comfortably, dress the children better, and eat more substantial and healthy food. Children healthy, bright and intelligent, and attend Sunday school. House is well furnished and has a small library. Live well and seem to be well satisfied, although their expenses equal their earnings.

FOOD—*Breakfast*—Coffee, bread, butter, milk, sugar and potatoes.

Dinner—Tea, bread, butter, ham and eggs, poultry and dessert.

Supper—Coffee, bread, butter, cheese, potatoes.

COST OF LIVING—

Rent	\$120	Books, papers, etc.	\$8
Fuel	35	Life insurance	17
Meat	100	Trades unions	11
Groceries	300	Sickness	80
Clothing	75	Sundries	9
Boots and shoes	15	Total	—
Dry goods	20		\$790

No. 24.	CIGAR MAKER.	American.
EARNINGS —Of father		
	Of son, aged eighteen	\$345
	Total	200
		<hr/> \$545
CONDITION —Family numbers 4—parents and two children, son aged eighteen and girl sixteen. Live in house containing four rooms, and pay a monthly rental of \$10. Is a member of the trade union, and considers he is greatly benefited thereby, inasmuch as it has been the means of an increase in his wages. Father attends church and reads a great deal, securing his reading matter from the Public Library. The street being paved the location is comparatively healthy.		
FOOD — <i>Breakfast</i> —Bread, coffee and butter.		
<i>Dinner</i> —Lunches.		
<i>Supper</i> —Soup, coffee, bread and butter and meat.		
COST OF LIVING —		
	Rent	\$120
	Fuel	15
	Meat and groceries	240
	Clothing, boots and shoes and dry goods	150
	Books, papers, etc	5
	Trades unions	11
	Total	<hr/> \$541

No. 25.	CIGAR MAKER.	German.
EARNINGS —Of father		\$360
CONDITION —Family numbers 5—parents and three children, one boy, aged four, and two girls, seven and ten. Live in a comfortable house containing four rooms, for which payment at the rate of \$9 is made, monthly. Two children attend school. Father belongs to trades union, which he considers of benefit to himself and family. House is well furnished and wife has a sewing machine. The children attend Sunday school.		
FOOD — <i>Breakfast</i> —Coffee, bread and butter.		
<i>Dinner</i> —Lunches.		
<i>Supper</i> —Soup, meat, etc.		
COST OF LIVING —		
	Rent	\$108
	Fuel	40
	Meat and groceries	390
	Clothing, boots and shoes and dry goods	25
	Trades unions	11
	Total	<hr/> \$484

No. 26.	CIGAR MAKER.	German.
EARNINGS —Of father		\$270
	Of son, aged fourteen	48
	Of daughter, aged seventeen	240
	Total	<hr/> \$558
CONDITION —Family numbers 7—parents, three girls, aged eight, twelve and seventeen, and two boys, aged five and fourteen. Rent a house containing seven rooms, for which they pay \$12 per month. Two boys attending school. House situated in an unhealthy locality.		
FOOD — <i>Breakfast</i> —Bread, meat, potatoes and coffee.		
<i>Dinner</i> —Lunches.		
<i>Supper</i> —Bread, meat, potatoes, tea and pies.		
COST OF LIVING —		
	Rent	\$144
	Fuel	30
	Meat and groceries	400
	Clothing	50
	Boots and shoes	20
	Dry goods	30
	Books, papers, etc	3
	Sickness	20
	Total	<hr/> \$697

No. 27.

CIGAR MAKER.

German.

EARNINGS —Of father	\$450	
Of son, aged fifteen.....	300	
Total		\$750

CONDITION—Family numbers 6—parents, two boys, aged fifteen and four, and two girls, thirteen and eleven. Live in house containing five rooms, and pay \$11 per month rent. Father belongs to trades union. One girl attending school. House is poorly furnished, locality fair, as far as sanitary condition is concerned. By living economically, manage to save some money.

FOOD—*Breakfast*—Bread, butter, tea and coffee.

Dinner—Bread, buter, tea and coffee.

Supper—Bread, butter, tea and coffee.

COST OF LIVING—

Rent	\$132	
Fuel	21	
Meat and groceries.....	70	
Clothing.....	100	
Boots and shoes.....	40	
Dry goods.....	100	
Books, papers, etc	2	
Trades unions.....	11	
Sickness	4	
Sundries	4	
Total		\$484

No. 28.

CIGAR MAKER.

German.

EARNINGS —Of father.....	\$600
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CONDITION—Family numbers 3—parents and one child, aged eighteen months. Live in house containing 4 rooms, for which a rental of \$8 per month is paid. House is comfortably furnished, sanitary condition good. Says he is benefited materially by being a member of the trades union.

FOOD—*Breakfast*—Bread, potatoes, tea and meat.

Dinner—Bread, potatoes, tea and meat.

Supper—Bread, potatoes, tea and meat.

COST OF LIVING—

Rent.....	\$96	
Fuel	25	
Meat and groceries	60	
Clothing, boots and shoes and dry goods	75	
Books, papers, etc	2	
Trades unions.....	11	
Total.....		\$269

No. 29.

CIGAR MAKER.

German.

EARNINGS —Of father.....	\$360
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CONDITION—Family numbers 2—husband and wife. Live in rented house containing two rooms, and pay \$7 per month for same. House poorly furnished, having no carpets. Has considerable sickness, and complains of things in general. Belongs to trades union.

FOOD—*Breakfast*—Bread, butter, meat and coffee.

Dinner—Bread, butter, meat and coffee.

Supper—Bread, butter, meat and coffee.

COST OF LIVING—

Rent.....	\$84 00	
Fuel	21 00	
Meat and groceries.....	156 00	
Clothing, boots and shoes and dry goods	50 00	
Books, papers, etc	5 00	
Life insurance.....	4 50	
Trades unions.....	11 00	
Sickness	50 00	
Total		\$381 50

No. 30.	CIGAR MAKER.	German.
EARNINGS—Of father.....		\$520
CONDITION—Family numbers 5—parents and three children, all girls, aged eight, eleven and sixteen; two of them attend school regularly. Live in tenement of 4 rooms, for which a rental of \$14 per month is made. Location fair, but no sewerage, consequently not very healthy.		
FOOD— <i>Breakfast</i> —Coffee and bread. <i>Dinner</i> —Meat, potatoes, bread, etc. <i>Supper</i> —Tea, bread, etc.		
COST OF LIVING—		
Rent.....	\$168	
Fuel.....	40	
Meat and groceries.....	175	
Clothing, boots and shoes and dry goods.....	125	
Books, papers, etc.....	6	
Sundries.....	6	
Total.....		\$520

No. 31.	CIGAR MAKER.	American.
EARNINGS—Of father.....		\$480
CONDITION—Family numbers 5—parents and three children, two girls, aged three and two, and a boy of seven weeks. Pay a rental of \$6 per month for a house containing two rooms, which is in fair condition, but location is unhealthy. Family do not attend church. Is a member of the trades union, and is benefited thereby.		
FOOD— <i>Breakfast</i> —Bread, butter, coffee, meat and potatoes. <i>Dinner</i> —Bread, butter, coffee, meat and potatoes. <i>Supper</i> —Bread, butter, coffee, meat and potatoes.		
COST OF LIVING—		
Rent.....	\$72	
Fuel.....	20	
Meat and groceries.....	300	
Clothing, boots and shoes and dry goods.....	20	
Trades unions.....	11	
Sickness.....	5	
Sundries.....	52	
Total.....		\$488

No. 32.	CIGAR MAKER.	American.
EARNINGS—Of father.....		\$450
Of sister.....		300
Of sister.....		350
Total.....		\$1,100
CONDITION—Family numbers 7—parents, two sisters and three children,—two girls, aged twenty-one and eleven, and boy, aged nine. Live in house containing 4 rooms, and pay a rental of \$12 per month. House is entirely carpeted and well furnished. Sanitary condition good. Family attend church. Belongs to trades union.		
FOOD— <i>Breakfast</i> —Bread, butter, tea, coffee and meat. <i>Dinner</i> —Meats, desserts and pastry. <i>Supper</i> —Bread, butter, tea and meat.		
COST OF LIVING—		
Rent.....	\$144	
Fuel.....	40	
Meat and groceries.....	336	
Clothing, boots and shoes and dry goods.....	300	
Books, papers, etc.....	10	
Life insurance.....	6	
Trades unions.....	11	
Sickness.....	30	
Sundries.....	169	
Total.....		\$1,046

No. 33.	CIGAR MAKER.	American.
EARNINGS —Of father		
	Of wife.....	\$720
	Total	416
		\$1,136
CONDITION —Family numbers 2—husband and wife. Live in a house containing three rooms, and pay \$9 per month rent. Locality good and sanitary condition first class. House is well furnished, wife has sewing machine. Husband belongs to trades union and considers it a great benefit as regards wages, also carries some life insurance. On the whole they are well situated and saving some money.		
FOOD — <i>Breakfast</i> —Bread, meat, potatoes, butter and coffee.		
<i>Dinner</i> —Lunches.		
<i>Supper</i> —Meat, vegetables, poultry, etc.		
COST OF LIVING —		
	Rent	\$108
	Fuel.....	25
	Meat and groceries.....	270
	Clothing.....	125
	Boots and shoes	11
	Dry goods	70
	Books, papers, etc	10
	Life insurance.....	24
	Trades unions.....	11
	Sundries.....	200
	Total.....	\$854

No. 34.	CIGAR MAKER.	American.
EARNINGS —Of father		\$576
CONDITION —Family numbers 3—parents and one child, girl, aged six. Own a comfortable house of ten rooms, every room carpeted and well furnished otherwise. Wife has sewing machine. Considers his condition improved since becoming a member of the trades union.		
COST OF LIVING —		
	Fuel.....	\$70
	Meat and groceries	200
	Clothing, boots and shoes and dry goods.....	150
	Books, papers, etc	10
	Trades unions.....	11
	Sickness.....	50
	Total	\$491

No. 35.	LABORER.	Italian.
EARNINGS —Of father		\$270
CONDITION —Family numbers 5—parents and three children, all boys, aged one, three and five. Live in one room, for which they pay \$1 per month rent. A very dirty and unhealthy place, everything perfectly filthy. There are about fifteen other families living in the same house. They buy the cheapest kind of meat from the neighboring slaughter houses and the children pick up fuel on the streets and rotten eatables from the commission houses. Children do not attend school. They are all ignorant in the full sense of the word. Father could not write his name.		
FOOD — <i>Breakfast</i> —Coffee and bread.		
<i>Dinner</i> —Soups.		
<i>Supper</i> —Coffee and bread.		
COST OF LIVING —		
	Rent.....	\$48
	Fuel.....	5
	Meat and groceries	100
	Clothing, boots and shoes and dry goods	15
	Sickness.....	5
	Total	\$173

No. 36.	LABORER.	Bohemian.
EARNINGS —Of father		
	Of son, aged twenty-three.....	\$480
	Of son, aged seventeen.....	384
	Total.....	250
		<hr/> \$1,114
CONDITION —Family numbers 6—parents and four boys, aged twenty-three, seventeen, fourteen and twelve. Father works 52 weeks per year; owns comfortable house of 4 rooms. The boys help support the family. House is comfortably furnished. Their expenditures equal their income.		
FOOD — <i>Breakfast</i> —Bread, butter and coffee.		
	<i>Dinner</i> —Lunches.	
	<i>Supper</i> —Meat, vegetables, bread and coffee.	
COST OF LIVING —		
	Fuel	\$30
	Meat and groceries	600
	Clothing	150
	Boots and shoes	20
	Dry goods	30
	Books, papers, etc.....	20
	Trades unions.....	11
	Sundries	253
	Total.....	<hr/> \$1,114

No. 37	LABORER.	Bohemian.
EARNINGS —Of father.....		
	Of son, aged twenty-two.....	\$300
	Total.....	360
		<hr/> \$660
CONDITION —Family numbers 6—parents and four children, boy aged twenty-two, and three girls, eighteen, fourteen and ten. Own comfortable house of 7 rooms, in a good, healthy locality, which is furnished substantially, but cheaply, and own sewing machine. Three girls attend day and Sunday school. Father and son belong to the trades union.		
FOOD — <i>Breakfast</i> —Meat, potatoes, bread and eggs.		
	<i>Dinner</i> —Lunches.	
	<i>Supper</i> —Soup meats, tea, coffee and potatoes.	
COST OF LIVING —		
	Fuel	\$50.
	Meat	75
	Groceries	300
	Clothing, boots and shoes and dry goods.....	150
	Trades unions.....	10
	Sickness.....	40
	Sundries.....	50
	Total.....	<hr/> \$675

No. 38.	LABORER.	Scandinavian.
EARNINGS —Of father.....		
	Of wife.....	\$320
	Total.....	100
		<hr/> \$420
CONDITION —Family numbers 8—parents and six children, four girls, twins three months, one two and one three years, two boys, one five and the other seven. Live in a house containing 4 rooms, and pay \$11 per month rent. House very poorly furnished, and a miserable affair altogether.		
FOOD — <i>Breakfast</i> —Bread, meat and coffee.		
	<i>Dinner</i> —Bread, vegetables and coffee.	
	<i>Supper</i> —Bread and coffee, etc.	
COST OF LIVING —		
	Rent.....	\$132
	Fuel	33
	Meat and groceries	165
	Clothing, boots and shoes and dry goods	65
	Sundries	25
	Total.....	<hr/> \$420

No. 39	LABORER.	Scandinavian.
EARNINGS —Of father.....		
	Of son, aged eleven.....	\$405
	Total.....	200
		\$605
CONDITION —Family numbers 5—parents and three children, two boys aged nine and eleven, and one girl seven. Live in a rented house, containing 4 rooms, for which \$8 per month is paid. House is a frame structure, poorly furnished with no carpets. They overrun their income.		
FOOD — <i>Breakfast</i> —Bread, butter, meat and coffee.		
<i>Dinner</i> —Bread, meat and vegetables.		
<i>Supper</i> —Bread, butter, meat and tea.		
COST OF LIVING —		
	Rent.....	\$96
	Fuel.....	30
	Meat.....	200
	Groceries.....	225
	Clothing.....	30
	Boots and shoes.....	20
	Dry goods.....	25
	Books, papers, etc.....	3
	Sundries.....	3
	Total.....	\$632

No. 40.	LABORER.	Scandinavian.
EARNINGS —Of father.....		
	Of daughter, aged seventeen.....	\$240
	Of son, aged fifteen.....	340
	Total.....	200
		\$780
CONDITION —Family numbers 5—parents and three children, two boys aged fifteen and seven, and a girl aged seventeen. Live in a 4 room house, and pay \$10 per month rent for the same. House is comfortable, but poorly furnished, and is in unhealthy location. Family attend church. Their expenditures exceed their income.		
FOOD — <i>Breakfast</i> —Meat, potatoes, bread and coffee.		
<i>Dinner</i> —Lunches.		
<i>Supper</i> —Soup, bread and meat.		
COST OF LIVING —		
	Rent.....	\$120
	Fuel.....	15
	Meat and groceries.....	300
	Clothing, boots and shoes, dry goods.....	120
	Books, papers, etc.....	5
	Sickness.....	40
	Sundries.....	250
	Total.....	\$850

No. 41.	LABORER.	Irish
EARNINGS —Of father.....		
		\$400
CONDITION —Family numbers 6—parents and four children, three boys, aged one, two and three, and one girl five years of age. Occupy a house containing 3 rooms, for which they pay a rental of \$10 monthly. The parents are intelligent, and seem to be satisfied and enjoy life. Being young people, they take little interest as yet in labor organizations.		
FOOD — <i>Breakfast</i> —Bread, butter, meat and coffee.		
<i>Dinner</i> —Bread, butter, vegetables and coffee or tea.		
<i>Supper</i> —Bread, butter, tea, occasionally meat.		
COST OF LIVING —		
	Rent.....	\$120
	Fuel.....	38
	Meat and groceries.....	150
	Clothing, boots and shoes, dry goods.....	100
	Books, papers, etc.....	5
	Sickness.....	15
	Sundries.....	22
	Total.....	\$450

No. 42.	LABORER.	Irish.
EARNINGS—Of father		\$520
CONDITION—Family numbers 2—husband and wife. Occupy a house of 4 rooms, and pay a monthly rental of \$12. House is nicely furnished, and they live comfortably and well. Husband has employment in flour mill the entire year. They live within their income. On the whole, they seem to be enjoying life. <input type="checkbox"/> House is in good locality; sanitary condition good. They save a little money.		
FOOD— <i>Breakfast</i> —Bread, butter, beefsteak and coffee. <i>Dinner</i> —Bread, butter, potatoes, meat and vegetables. <i>Supper</i> —Bread, butter, cold meat and tea.		
COST OF LIVING—		
Rent	\$144	
Fuel	50	
Meat and groceries	180	
Clothing, boots, shoes and dry goods	100	
Books, papers, etc	5	
Sundries	30	
Total		\$509

No. 43	LABORER.	Irish.
EARNINGS—Of father		\$370
Of son, aged twelve		24
Total		\$394
CONDITION—Family numbers 6—parents and four children, two boys, aged seven and twelve, and two girls, five and nine. The two girls and one boy attend school regularly. Own their house, which contains 3 rooms. House is scantily furnished, with no carpets. Father receives \$1.25 per day, and works for railroad company. He complains of the wages being too small. They are, however, saving some money, and expect to be more comfortable in the future, although they live comparatively well now, with the exception that the house is not large enough. The son, having no regular employment, helps but little. The father has steady work the entire year.		
FOOD— <i>Breakfast</i> —Bread, butter and coffee. <i>Dinner</i> —Bread, potatoes, salt meat and cabbage. <i>Supper</i> —Bread, butter, cold meat and tea.		
COST OF LIVING—		
Fuel	\$50	
Meat and groceries	160	
Clothing, boots, shoes and dry goods	90	
Sundries	15	
Total		\$315

No. 44.	LABORER.	Irish.
EARNINGS—Of father		\$250
CONDITION—Family numbers 2—husband and wife. The house they occupy contains 6 rooms, and is owned by the company for which the husband works, and for which he pays a rental of \$10 per month. He has found it extremely difficult to secure constant work the year through, having worked but eight months of this year, and consequently, notwithstanding practicing the utmost economy, he is in debt at the end of the year. He receives \$1.25 per day for his labor, and would be satisfied, could he have regular work; thinks the prospect for the coming year no better. He carries no life insurance, and is not a member of the trades union.		
FOOD— <i>Breakfast</i> —Bread, butter and coffee. <i>Dinner</i> —Potatoes, bread and salt meat. <i>Supper</i> —Bread, butter and tea.		
COST OF LIVING—		
Rent	\$120	
Fuel	30	
Meat and groceries	65	
Clothing, boots, shoes and dry goods	45	
Books, papers, etc	3	
Sundries	7	
Total		\$270

No. 45.	LABORER.	American.
EARNINGS —Of father.....		
	Of son, aged eight.....	\$450
	Total.....	150
		\$600

CONDITION—Family numbers 7—parents and five children, three boys and two girls, aged between two and eight years. Father and son have steady work the entire year. The father receives \$9 per week, and the son \$3. Live in a house containing 4 rooms, and pay a rental of \$9 per month. House is situated in healthy locality but is poorly furnished. Wife has a sewing machine, and small library. Father gives but little attention to labor organizations. Seems to be saving a little money.

FOOD—Good, wholesome food.

COST OF LIVING —		
Rent.....	\$108	
Fuel.....	30	
Meat and groceries.....	250	
Clothing, boots and shoes, dry goods, books, papers, etc.....	55	
Sickness.....	35	
Sundries.....	32	
Total.....		\$510

No. 46.	LABORER.	American.
EARNINGS —Of father.....		
	Of wife.....	\$360
	Total.....	100
		\$460

CONDITION—Family numbers 7—parents and five children, aged from six months to eight years. They live in a house which they rent, and pay a rental of \$10 per month. Two of the children attend school. House is situated in good, respectable neighborhood. The furniture and carpets are poor in quality, but substantial. The father is not a member of a labor organization, but subscribes for the labor papers. Their living expenses exceed their income.

FOOD—*Breakfast*—Salt meat, bread, butter and coffee.
Dinner—Bread, meat and vegetables.
Supper—Bread, coffee, etc.

COST OF LIVING —		
Rent.....	\$120	
Fuel, meat and groceries.....	225	
Clothing, boots and shoes and dry goods.....	85	
Books, papers, etc.....	2	
Sundries.....	75	
Total.....		\$507

No. 47.	LABORER.	Irish.
EARNINGS —Of father.....		
		\$343

CONDITION—Family numbers 5—parents and three children, two girls, aged seven and five, and boy, aged eight. They occupy a rented house of 4 rooms, and pay a rental, monthly, of \$7. Two of the children attend school. Father complains of the wages he receives, being but \$1.10 per day, and says it is extremely difficult for him to support his family upon that amount. His work consists in cleaning yards, basements, out-buildings, etc., and is, in fact, a regular scavenger. He also complains of the work as being very unhealthy, but it seems he can procure no other work.

FOOD—*Breakfast*—Black coffee, bread and potatoes.
Dinner—Corned beef, cabbage and potatoes.
Supper—Bread, coffee and potatoes.

COST OF LIVING —		
Rent.....	\$84	
Fuel.....	15	
Meat and groceries.....	180	
Clothing, boots and shoes and dry goods.....	40	
Sundries.....	20	
Total.....		\$339.

No. 48.	LABORER.	Irish.
EARNINGS—Of father		
		\$450
CONDITION—Family numbers 2—husband and wife. Own a comfortable cottage of 5 rooms, good locality, surroundings clean and healthy. House is poorly furnished. They are very economical, but have an abundance of good, substantial food. Both husband and wife are very ignorant—in fact, they are unable to read or write. The only money they spend is for the actual necessities of life, and therefore save some money nearly every year.		
FOOD—Breakfast—Bread, meat, potatoes and coffee.		
Dinner—Meat, potatoes, vegetables, etc.		
Supper—Bread, butter and tea.		
COST OF LIVING—		
Fuel.....		\$20
Meat and groceries		1.0
Clothing, boots and shoes and dry goods.....		75
Total.....		\$275

No. 49.	LABORER.	German.
EARNINGS—Of father		
		\$375
CONDITION—Family numbers 4—parents and two children, boy aged one year, girl three. They pay a rental of \$9 per month for a house containing 4 rooms, which is in a filthy condition, it being in a block of miserable frame tenements. The family are in want; they are only about half clothed and fed, look sickly, and are exceedingly illiterate.		
FOOD—Breakfast—Salt meat, bread and coffee.		
Dinner—Coffee and toast.		
Supper—Bread, butter, meat and tea.		
COST OF LIVING—		
Rent.....		\$108
Fuel.....		25
Meat.....		40
Groceries		100
Clothing.....		10
Boots and shoes.....		6
Dry goods.....		25
Sickness.....		25
Sundries.....		36
Total.....		\$375

No. 50.	MACHINIST.	American.
EARNINGS—Of father		
		\$705
CONDITION—Family numbers 3—parents and one child, aged one year. Live in a cottage containing 4 rooms, for which a payment of \$15 per month is made. Father works 47 weeks a year, and receives \$2.50 per day wages. The cottage is neat, with pleasant surroundings; all the rooms are nicely furnished. Wife has sewing machine. Family are well dressed and attend church regularly. Live economically, but well, and save a little money every year.		
FOOD—Breakfast—Bread, meat, potatoes and coffee.		
Dinner—Meat, potatoes, vegetables, pie and tea.		
Supper—Cold meat, bread, cake and tea.		
COST OF LIVING—		
Rent.....		\$180
Fuel.....		40
Meat and groceries		200
Clothing, boots and shoes and dry goods		115
Books, papers, etc.....		20
Sickness.....		20
Sundries.....		15
Total.....		\$590

No. 51.	MACHINIST.	American.
EARNINGS —Of father.....		
	Of mother.....	\$540
	Of son, aged sixteen.....	255
	Total.....	255
		\$1,050,
CONDITION —Family numbers 10—parents and eight children, five girls and three boys, aged from two to sixteen. Four of the children attend school. Father works only 30 weeks in the year, receives \$3 per day for his services. They live in a comfortably furnished house, of 7 rooms, have a piano, take an interest in society and domestic affairs, are intelligent, but do not dress very well. Their expenditures are equal, but do not exceed their income. Father belongs to trades union, and is interested and benefited by and in it.		
FOOD — <i>Breakfast</i> —Bread, meat and coffee.		
<i>Dinner</i> —Bread, meat, vegetables and tea.		
<i>Supper</i> —Bread, meat, vegetables and coffee.		
COST OF LIVING —		
	Rent.....	\$300
	Fuel.....	50
	Meat.....	100
	Groceries.....	200
	Clothing.....	160
	Boots and shoes.....	50
	Dry goods.....	25
	Books, papers, etc.....	15
	Trades unions.....	10
	Sickness.....	50
	Sundries.....	90
	Total.....	\$1,050

No. 52.	MALSTER.	Irish
EARNINGS —Of father.....		
		\$576
CONDITION —Family numbers 3—parents and one boy, thirteen months of age. Live in a house containing 3 rooms, for which they pay a rental of \$9 per month. Father works 52 weeks in the year, and eleven hours per day. He is in favor of the eight-hour law, and the discontinuance of convict labor in all branches of trade, as it greatly interferes with the honest classes of laboring men.		
FOOD — <i>Breakfast</i> —Bread, butter, meat, potatoes and coffee.		
<i>Dinner</i> —Bread, butter, meat, potatoes and tea.		
<i>Supper</i> —Bread, butter and tea.		
COST OF LIVING —		
	Rent.....	\$108
	Fuel.....	30
	Meat and groceries.....	300
	Clothing, boots and shoes; dry goods, books, papers, etc.....	75
	Sickness.....	20
	Sundries.....	43
	Total.....	\$576

No. 53.	MARBLE-WORKER.	Irish.
EARNINGS —Of father.....		
		\$600
CONDITION —Family numbers 4—parents and two children, girl, aged four, and boy, two. They occupy a house of three rooms, and pay a monthly rental of \$8 for the same. He works 50 weeks in the year, and receives \$2 per day for his labor; says that he could do better, but that prison-labor interferes materially with the business he follows. House is situated in a poor and unhealthy locality.		
FOOD — <i>Breakfast</i> —Coffee, meat, bread, etc.		
<i>Dinner</i> —Lunch.		
<i>Supper</i> —Tea, meat, potatoes, etc.		
COST OF LIVING —		
	Rent.....	\$96
	Fuel.....	34
	Meat and groceries.....	250
	Clothing, boots and shoes and dry goods.....	100
	Books, papers, etc.....	10
	Sickness.....	10
	Sundries.....	50
	Total.....	\$550

No. 54.

MATTRASS MAKER.

American.

EARNINGS—Of father..... \$440

CONDITION—Family numbers 5—parents and three children, all girls, aged ten, seven and two. They live in a house containing 4 rooms, and pay \$12 per month rent for it. The father receives \$3 per day, but his trade only warrants work in the spring and fall of the year, being compelled to lay idle during summer and winter. He only worked thirty weeks during the year of 1883, and at nine and eight hours for a day's work. He is the only married man in the factory; the balance of the employes, both young men and women, are fast and live easy lives, and only receive from \$3 to \$5 per week.

FOOD—*Breakfast*—Meat, bread and coffee.

COST OF LIVING—

Rent.....	\$144
Fuel.....	22
Meat and groceries.....	200
Boots and shoes.....	75
Sickness.....	5
Total.....	<hr/> \$446

No. 55.

MOULDER.

Scandinavian.

EARNINGS—Of father..... \$756

CONDITION—Family numbers 5—parents and three children, two girls, aged one and three, and one boy, five. Occupy a comfortable and pleasant house, containing 5 rooms, situated in a healthy locality, for which they pay \$12 per month rent. House is well furnished. One child attends school, and the parents are intelligent and attend church. Father belongs to trades union, and is positive it is of great benefit to him. He works forty-two weeks in the year, and has no sickness in his family. Lives plainly but substantially, and saves money.

FOOD—*Breakfast*—Bread and coffee.*Dinner*—Bread, meat, vegetables and coffee.*Supper*—Bread, cold meat, pie and tea.

COST OF LIVING—

Rent.....	\$144
Fuel.....	36
Meat and groceries.....	250
Clothing, boots and shoes, dry goods.....	200
Books, papers, etc.....	10
Trades unions.....	5
Sundries.....	5
Total.....	<hr/> \$650

No. 56.

MOULDER.

American.

EARNINGS—Of father..... \$513

CONDITION—Family numbers 6—parents and four children, three girls and one boy, aged from one to six years. Live in a house containing 4 rooms, and pay \$20 per month rent, which includes gas. House is comfortable, and in good locality. Father only worked thirty-eight weeks during the year, and received \$2.25 per day for his services. He worked ten hours winter and summer. He is not a member of any trades organization, but is willing to join any thing of the kind that will tend to relieve him of the domineering of property holders and employers.

FOOD—*Breakfast*—Bread, butter, meat and coffee.*Dinner*—Bread, butter, meat and tea.*Supper*—Bread, butter and coffee.

COST OF LIVING—

Rent.....	\$240
Fuel.....	24
Meat and groceries.....	200
Clothing, boots and shoes, dry goods.....	100
Books, papers, etc.....	6
Sickness.....	15
Sundries.....	28
Total.....	<hr/> \$613

No. 57.

ORGAN BUILDER.

Canadian.

EARNINGS—Of father..... \$800

CONDITION—Family numbers 5—parents and three children, one boy and two girls. The house they occupy contains 5 rooms, for which they pay \$15 per month rent. They do not live extravagantly, dress plainly and as cheaply as possible. Father says he is the only one in the establishment in which he works who receives as much as \$2.75 per day, and that the average wages paid per day, to the other employes, is about \$2.25. Inasmuch as he saves but very little money during the year, he claims that the others would not accumulate anything.

FOOD—*Breakfast*—Bread, butter, meat, griddle cakes and coffee.*Dinner*—Meat, potatoes, vegetables and soup.*Supper*—Bread and butter, pie or cake.

COST OF LIVING—

Rent.....	\$180	
Fuel.....	40	
Meat.....	75	
Groceries.....	300	
Clothing.....	75	
Boots and shoes.....	25	
Dry goods.....	25	
Books, papers, etc.....	15	
Life insurance.....	18	
Sickness.....	20	
Sundries.....	10	
Total.....		\$783

No. 58.

PAINTER.

American.

EARNINGS—Of father..... \$405
 One girl, aged seventeen..... 78
 Total..... \$483

CONDITION—Family numbers 9—parents and seven children, five boys and two girls, aged from three to seventeen. Three of the children attend school regularly. The house they occupy is rented, and contains 4 rooms, for which they pay \$12 per month. Father only able to secure work at his trade for about thirty weeks in the year, balance of the time he is idle, and has no steady remunerative employment. Carries no life insurance, but is a member of a trades union. Their expenses exceed their income, and the excess is supplied by friends. Live plainly.

FOOD—*Breakfast*—Bread and coffee.*Dinner*—Father carries lunch. Bread and meat.*Supper*—Potatoes, bread and tea.

COST OF LIVING—

Rent.....	\$144 00	
Fuel.....	40 00	
Meat.....	75 00	
Groceries.....	200 00	
Clothing.....	50 00	
Boots and shoes.....	20 00	
Dry goods.....	30 00	
Trades unions.....	3 60	
Sickness.....	20 00	
Total.....		\$583

No. 59.

PAINTER.

American.

EARNINGS—Of father..... \$800

CONDITION—Family numbers 3—all adults. Live in rented house containing 7 rooms, for which they pay \$15 per month. Have had sickness in the family for many years; by economy manage to make the annual expenses correspond with earnings; do not keep an expense account, but pay cash for what they have or go without.

FOOD—*Breakfast*—Meat or fish, potatoes coffee.*Dinner*—Lunch.*Supper*—Meat, vegetables, (Saturdays, pork and beans).

COST OF LIVING—

Rent.....	\$180 00	
Fuel.....	30 00	
Meat.....	85 00	
Groceries.....	200 00	
Clothing.....	100 00	
Boots and shoes.....	25 00	
Books, papers, etc.....	12 00	
Trades unions.....	3 60	
Sickness.....	45 00	
Total.....		\$681

No. 60.	PAINTER.	American.
EARNINGS—Of father.....		\$552
CONDITION—Family numbers 2—husband and wife, and live in a house containing 3 rooms, on Jefferson street, which is considered a good healthy locality. He had work at from \$2 to \$3 per day for forty-six weeks during the past year, but they seem to live pretty well and they expended more than was earned. Husband belongs to trades union. They pay \$15 per month rental for the house with but 3 rooms:		
FOOD— <i>Breakfast</i> —Bread, butter and coffee. <i>Dinner</i> —Bread, butter, meat, coffee, pie or cake. <i>Supper</i> —Meat, potatoes, bread, butter, tea or coffee.		
COST OF LIVING—		
Rent ..	\$180 00	
Fuel ..	28 00	
Meat.....	120 00	
Groceries.....	200 00	
Clothing.....	15 00	
Boots and shoes.....	15 00	
Dry goods ..	30 00	
Books, papers, etc ..	4 00	
Trades unions.....	3 00	
Sickness.....	15 00	
Sundries ..	50 00	
Total		\$661

No. 61.	PAINTER.	English.
EARNINGS—Of father.....		\$9 0
Of wife.....		20
Saved from previous year.....		150
Total		\$1, 120
CONDITION—Family numbers 3—parents and one child. Live in house containing 6 rooms, for which they pay \$15 per month rent. The father asserts that the year of 1883 has been the best for workmen that he has experienced for thirteen years; he also says that he believes that the firm for which he works, have paid at least twenty per cent. better wages than any other firm in the city. They have been troubled with sewer gas, which is ascribed to want of proper inspection of tenements, and to that he charges a great deal of sickness in his family, and the death of four of his children, two of whom died during the year of 1883. The father receives \$3 per day and worked about forty-five weeks during the year—eight hours being a day's work in the winter and ten during the summer.		
FOOD— <i>Breakfast</i> —Eggs, toast and coffee. <i>Dinner</i> —Lunch. <i>Supper</i> —Meat, vegetables and tea.		
COST OF LIVING—		
Rent.....	\$180	
Fuel.....	40	
Meat.....	70	
Groceries.....	200	
Clothing.....	70	
Boots and shoes ..	30	
Dry goods.....	40	
Books, papers, etc ..	25	
Life insurance.....	16	
Trades unions.....	8	
Sickness.....	250	
Sundries ..	137	
Total		\$1, 066

No. 62.	PAPER CARRIER.	American.	
EARNINGS—Of husband.....		\$208	
Sub-renting.....		517	
Total		—————	
		\$725	
CONDITION—Family consists of husband and wife. Have no children. Husband carries papers fifty-two weeks in the year. Live in a new tenement house, for which they pay a rental of \$40 per month, but by renting furnished rooms they are enabled to come out nearly square with the world. Husband is intelligent, is friendly to labor organizations, though he is not connected with any, and takes some interest in political and social matters. Was a Union soldier throughout the war.			
FOOD— <i>Breakfast</i> —Bread, butter, sometimes meat, coffee.			
<i>Dinner</i> —Bread, butter, sometimes meat, coffee.			
<i>Supper</i> —Bread, butter, sometimes meat, coffee.			
COST OF LIVING—			
Rent	\$480	Books, papers, etc	5
Fuel, meat and groceries.....	160	Sickness.....	10
Clothing, boots and shoes and dry goods.....	80	Sundries	30
		Total	—————
			\$765

No. 63.

PLASTERER.

*English.***EARNINGS—Of father**..... \$800

CONDITION—Family numbers 3—parents and one girl, aged two years. Live in house containing 6 rooms, which they rent and pay for the same at the rate of \$20 per month. It is a very pleasant house, but the surroundings are not so pleasant as they might be. They rent 1 room furnished for \$75 per annum, and about one-half of that amount is paid for car fare. Family are neat, clean, and dress well, but have not succeeded yet in saving anything, but have lived up to, and at times in excess of, their earnings.

FOOD—Breakfast—Bread, butter, coffee and eggs.*Dinner*—Lunches.*Supper*—Bread, butter, tea, fish and vegetables.**COST OF LIVING—**

Rent	\$240 00
Fuel	45 00
Meat	55 00
Groceries	208 00
Clothing	60 00
Boots and shoes	10 00
Dry goods	25 00
Books, papers, etc.	20 00
Trade unions	3 60
Sickness	50 00
Sundries	150 00
Total	<hr/> \$867

No. 64.

PLASTERER.

*English.***EARNINGS—Of father**..... \$900

CONDITION—Family numbers 4—parents and two boys, one and three years old. Occupy 5 rooms in a good brick house, at \$20 per month rent, in a healthy location, with pleasant surroundings; rooms well furnished. Family dress well, attend church, and save a little money, which is owing largely to having fifty weeks' work during the year, the average for this class of workingmen being much less.

FOOD—Breakfast—Bread, meat, potatoes and coffee.*Dinner*—Meat, vegetables.*Supper*—Bread, cold meat, butter, tea.**COST OF LIVING—**

Rent	\$240
Fuel	35
Meat and groceries	200
Clothing, boots and shoes and dry goods	150
Books, papers, etc.	15
Sickness	15
Sundries	10
Total	<hr/> \$665

No. 65.

PLUMBER.

*Scotch-American.***EARNINGS—Of father**..... \$1,050

CONDITION—Family numbers 3—parents and one girl seven years old, who attends school. Occupy 3 rooms, for which they pay \$13 per month rent; situation not very pleasant, but healthy; have had very little sickness. Rooms comfortably furnished. Family dress plainly, are below the average in intelligence, do not attend church or better class of public entertainments. The head of the family has employment fifty weeks during the year, and earns more than the average of wage-workers, which would indicate sobriety and industry, notwithstanding much of his leisure time is spent in beer-gardens and like places of amusement.

FOOD—Breakfast—Bread, butter, meat, potatoes, eggs, fruit.*Dinner*—Lunch.*Supper*—About the same as breakfast.**COST OF LIVING—**

Rent	\$156 00
Fuel	36 00
Meat	100 00
Groceries	200 00
Clothing	60 00
Boots and shoes	27 00
Dry goods	15 00
Books, papers, etc.	7 00
Sickness	10 00
Sundries	150 00
Total	<hr/> \$761

No. 66.	PLUMBER.	Irish.
EARNINGS— Of husband.....		\$900
CONDITION— Family numbers 2—adults. Rent 4 comfortable rooms in brick building, at \$16 per month. Rooms are nicely furnished and have healthy surroundings. Husband has fifty weeks' employment in the year, which enables them to dress and live well, considerably within their annual income.		
FOOD— <i>Breakfast</i> —Bread, meat and coffee. <i>Dinner</i> —Meat, vegetables, bread and tea. <i>Supper</i> —Bread, cake, cold meat and tea.		
COST OF LIVING—		
Rent.....	\$192	
Fuel.....	45	
Meat and groceries.....	300	
Clothing, boots and shoes, dry goods.....	130	
Books, papers, etc.....	10	
Sickness.....	5	
Sundries.....	25	
Total.....	—	\$707

No. 67.	PRINTER.	American.
EARNINGS— Of father.....		\$756
Salary as president Typographical Union.....		200
Total.....		\$956
CONDITION— Family numbers 5—parents and three children, one boy and two girls, the latter aged six and thirteen, respectively, and the former aged nine. The boy and one of the girls attend school. They occupy a rented house of 5 rooms, and pay for same \$12 per month. Father is president of Typographical Union, and works at job printing. Carries life insurance and belongs to other unions. Thinks what the working classes need is legislation for their interests, and not for the capitalists.		
FOOD— <i>Breakfast</i> —Coffee, meat, potatoes and tea. <i>Dinner</i> —Lunch. <i>Supper</i> —Meat, tea, sauce and ham.		
COST OF LIVING—		
Rent.....	\$144	
Fuel.....	40	
Meat and groceries.....	300	
Clothing, boots and shoes, dry goods.....	150	
Books, papers, etc.....	15	
Life insurance.....	20	
Trades unions.....	10	
Sickness.....	25	
Sundries.....	200	
Total.....	—	\$904

No. 68.	PRINTER.	American.
EARNINGS— Of father.....		\$580
Of girl, aged sixteen.....		150
Total.....		\$730
CONDITION— Family numbers 5—parents and three children, two boys and one girl, aged five, nine and sixteen, respectively. Occupy a house containing 4 rooms, and pay for same \$120 per annum. Father says the reason printers in Chicago have been able thus far to keep up their wages, is the strength and unity of their organizations. The supply of men is greatly in excess of the demand, which must necessarily entail much hardship on those not fortunate enough to find steady employment.		
FOOD— <i>Breakfast</i> —Coffee, meat and potatoes. <i>Dinner</i> —Lunch. <i>Supper</i> —Tea, meat, sauce, etc.		
COST OF LIVING—		
Rent.....	\$120	
Fuel.....	30	
Meat and groceries.....	300	
Clothing, boots and shoes, dry goods.....	100	
Books, papers, etc.....	25	
Life insurance.....	20	
Trades unions.....	6	
Sickness.....	19	
Sundries.....	100	
Total.....	—	\$720

No. 69.

PRINTER.

American.

EARNINGS—Of father..... \$1,038

CONDITION—Family numbers 9—father, mother and seven children, ages and sex not given. Two of the children attend school. They occupy a house of 7 rooms, which is rented, and pay \$18 per month for same. Father belongs to Typographical Union, and believes the organization a very great benefit to the craft. He secured work during the past year for forty-five weeks, and received about \$24.00 a week for his work. The expenses of the family exceed the income.

FOOD—*Breakfast*—Meat, bread, butter and coffee.*Dinner*—Lunch.*Supper*—Meat, potatoes, tea, etc.**COST OF LIVING**—

Rent	\$216	
Fuel	60	
Meat	156	
Groceries	208	
Clothing	340	
Boots and shoes and dry goods	100	
Books, papers, etc.....	20	
Trades unions	6	
Sickness	25	
Sundries	75	
Total	—	\$1,166

No. 70.

PRINTER.

American.

EARNINGS—Of mother..... \$910
 Of sister..... 50
 Total..... \$960

CONDITION—Family numbers 3—mother, sister and one child. Father is dead. They rent a house containing 6 rooms, and pay for same \$180 per annum. The mother belongs to Typographical Union, which is composed of twenty-seven women, and they receive exactly the same wages as the men, which is in accordance with the rules of the Union. They also have an equal voice in matters pertaining to that body. She thinks the Union of very great benefit to all of its members. The female members generally are occupied in distributing type. Receive \$3 in winter and \$3 25 in summer per day.

FOOD—*Breakfast*—Coffee and toast.*Dinner*—Lunches.*Supper*—Meat, potatoes, vegetables, etc.**COST OF LIVING**—

Rent	\$180	
Fuel	35	
Meat	125	
Groceries	150	
Clothing	250	
Boots and shoes, dry goods, books, papers, etc.....	50	
Trades unions	6	
Sickness	6	
Sundries	5	
Total	—	\$807

No. 71.

PUDDLER.

Irish.

EARNINGS—Of father..... \$520

CONDITION—Family numbers 6—parents and four children, one girl fourteen, and three boys, aged five, nine and eleven. All the children attend school. Live in rented house containing 6 rooms, at a rental of \$12 per month. Has employment only twenty weeks during the year, which furnishes only about half of the annual living expense. Wife takes boarders to make up the balance. Prospect for steady work or improved condition not very promising.

FOOD—*Breakfast*—Bread, butter, sometimes beefsteak and coffee.*Dinner*—Bread, butter, corned beef, cabbage, coffee.*Supper*—Bread, butter, cold meat, tea.**COST OF LIVING**—

Rent	\$144	
Fuel	50	
Meat and groceries	640	
Clothing, boots and shoes and dry goods	160	
Books, papers, etc.....	25	
Trades unions	24	
Sickness	40	
Sundries	80	
Total	—	\$1,163

No. 72.	ROLLING MILL HAND.	Irish.
EARNINGS —Of father.....		
	Of son, aged twenty	\$420
	Of girl, aged sixteen	300
	Total.....	100
		<hr/>
		\$820
CONDITION —Family numbers 5—parents and three children, son aged twenty, and two girls, sixteen and twelve. The younger child attends school. The tenement, for which they pay a monthly rental of \$14, contains 4 rooms, and is comfortably furnished, but in poor location. Father had but about 40 weeks' work during the past year, and had it not been for the assistance rendered by his son and elder daughter, they would have been in debt at the end of the year. As it is, they saved but \$57.		
FOOD — <i>Breakfast</i> —Bread, meat, potatoes and coffee.		
	<i>Dinner</i> —Meat, potatoes, bread, pie and tea.	
	<i>Supper</i> —Bread, cold meat and tea.	
COST OF LIVING —		
	Rent.....	\$168
	Fuel.....	40
	Meat and groceries.....	\$25
	Clothing, boots and shoes and dry goods.....	160
	Books, papers, etc.....	20
	Trades unions.....	5
	Sickness.....	15
	Sundries	30
	Total.....	<hr/>
		\$763

No. 73.	SAWYER.	Canadian.
EARNINGS—Of father.....		\$624
CONDITION—Family numbers 5—parents and three male children, aged respectively four, three and one years. Family reside in house containing three rooms, and pay for same per month \$9. Father carries some life insurance, but does not belong to the trades union. He works the entire year, and his wages average \$12 per week. He says the figures given below are a close estimate for cost of living in Chicago, without luxuries of any kind, but for merely the bare necessities of life. Had some sickness in the family during the year, for which he still owes the doctor.		
FOOD— <i>Breakfast</i> —Toast and coffee.		
<i>Dinner</i> —Bread, meat and coffee.		
<i>Supper</i> —Meat and vegetables.		
COST OF LIVING—		
Rent.....	\$108 00	
Fuel.....	48 00	
Meat.....	150 00	
Groceries.....	156 00	
Clothing.....	40 00	
Boots and shoes.....	17 00	
Dry goods.....	10 00	
Books, papers, etc.....	9 36	
Life insurance.....	20 00	
Sickness.....	13 88	
Sundries.....	47 76	
Total.....		\$600

No. 74.	SHOEMAKER.	American.
EARNINGS—Of father.....		\$700
CONDITION—Family numbers 5—parents and three children, aged one, two and five years; all boys, and none of them are considered old enough to attend school. Occupy house containing three rooms, and pay for same rent at the rate of \$15 per month. The father says it takes all he can make to pay ordinary living expenses, and says it is utterly impossible to save anything. He says factory life in Chicago is a hard one. He belongs to trades union and carries some life insurance. Says he ought to live better than he does.		
FOOD— <i>Breakfast</i> —Meat, eggs, bread and potatoes.		
<i>Dinner</i> —Lunch.		
<i>Supper</i> —Meats and vegetables.		
COST OF LIVING—		
Rent.....		\$180
Fuel.....		60
Meat.....		144
Groceries.....		96
Clothing.....		36
Boots and shoes.....		25
Dry goods.....		50
Books, papers, etc.....		12
Life insurance.....		24
Trades unions.....		4
Sickness.....		100
Sundries.....		66
Total.....		<hr/> \$797

No. 75.

STEEL WORKER.

Irish.

EARNINGS—Of father \$760

CONDITION—Family numbers 3—husband, wife and one male child nearly two years of age. He owns a nice cottage, containing 4 rooms, which are well furnished; wife has a fine piano. They live very well indeed. Father belongs to trades union. His trade pays him \$5 per day, but owing to the rolling mill, in which he was employed, not working but about 20 weeks during the year, his earnings are comparatively small, but he has hopes of work for the entire year, and strong hopes for the future.

FOOD—*Breakfast*—Bread, butter, steak and coffee.
Dinner—Bread, butter, corned beef and cabbage.
Supper—Bread, butter, cold meat and coffee.

COST OF LIVING—

Fuel	\$30
Meat and groceries	190
Clothing, boots and shoes, dry goods.....	210
Books, papers, etc	10
Trades unions	30
Sundries	250
Total.....	\$720

No. 76.

STONE CUTTER.

Irish.

EARNINGS—Of father \$1,008

CONDITION—Family numbers 6—parents and four children, three boys and one girl, aged respectively seven, nine, thirteen and three years. Three of the children attend public schools. They occupy a rented house containing 5 rooms, and pay per annum for the same \$144. Father had work 42 weeks of last year, and averaged \$4 per day. Belongs to trades union, and claims it to be an extremely strong organization, and had kept up the eight (8) hour system for the past 10 years. Live well and on a pleasant street. Expenses less than his earnings.

FOOD—*Breakfast*—Meat, coffee, bread, etc.
Dinner—Lunches.
Supper—Tea, meat, sauce, potatoes, etc.

COST OF LIVING—

Rent	\$144
Fuel	40
Meat and groceries	400
Clothing	100
Boots and shoes.....	40
Dry goods	50
Books, papers, etc.....	10
Trades unions.....	5
Sickness	25
Sundries	100
Total	\$914

No. 77.

STREET-CAR CONDUCTOR.

American.

EARNINGS—Of father \$691

CONDITION—Family numbers 4—parents and two boys, aged two and four years. Father works 38 weeks in the year and 12 hours per day, and receives for his services an average of \$2.60 per day. Occupies house containing 4 comfortable rooms. Husband belongs to trades union, but does not carry any life insurance. Father does not have steady employment the entire year, and has very unpleasant hours to work. Goes to work at 5 o'clock A.M., works about six hours, then lays off until 4 P. M., from which time he works until 11 P. M.

FOOD—*Breakfast*—Bread, steak and coffee.
Dinner—Bread, vegetables, meat and fish.
Supper—Same as breakfast.

COST OF LIVING—

Rent	\$120
Fuel	60
Meat and groceries	280
Clothing, boots and shoes and dry goods.....	150
Books, papers, etc	15
Trades unions.....	5
Sickness	20
Sundries	40
Total	\$690

No. 78.

STREET-CAR CONDUCTOR.

American.

EARNINGS—Of father..... \$700

CONDITION—Family numbers 7—parents and five children, three girls and two boys, aged one to eight years. Two of the children attend school. Live in a house containing 5 rooms, for which they pay \$15 per month rent. House is in good locality and is very comfortable. Father is dissatisfied on account of his being compelled to work fifteen hours per day during the entire year. He thinks if the city owned the street railway and the working hours were reduced to eight hours a day, at their present wages, it would work a revolution and be more satisfactory to all concerned.

FOOD—*Breakfast*—Bread, butter, vegetables, cake and coffee.*Dinner*—Bread, butter, vegetables, cake and coffee.*Supper*—Bread, butter, vegetables, cake and coffee.

COST OF LIVING—

Rent	\$180	
Fuel, meat and groceries	250	
Clothing, boots and shoes and dry goods	145	
Books, papers, etc	15	
Trades unions	10	
Sickness	20	
Sundries	75	
Total		\$695

No. 79.

STREET-CAR CONDUCTOR.

American.

EARNINGS—Of father..... \$780

CONDITION—Family numbers 6—father and five children, three girls and two boys, aged four to fifteen years. Three children attend public school. Family live in a house containing 5 rooms, for which they pay a rental of \$18 per month. House situated in good location and well furnished. Father works fifteen hours per day during fifty-two weeks of the year. The mother being dead, the older children keep house and take care of the younger child. When asked what they usually had for their meals, the father declined to inform the canvasser. They manage to save \$100 per annum.

COST OF LIVING—

Rent	\$216	
Fuel	45	
Meat and groceries	215	
Clothing, boots and shoes and dry goods	175	
Trades unions	4	
Sickness	5	
Sundries	20	
Total		\$680

No. 80.

STREET-CAR CONDUCTOR.

German.

EARNINGS—Of father..... \$728

CONDITION—Family numbers 7—parents and five children, three girls, aged one, two and three years, and two boys, five and eight. Four of the children attend school. Live in a house containing 4 rooms, and pay rent for same at the rate of \$12 per month. House is in unhealthy location, and furnished poorly. Father says he was compelled to run in debt, and that fact keeps him behind in his expenses. He works sixteen hours every day in the year; never gets time to read the papers. Says the company is grinding him and all the others down to the starvation point. The only time he has when not at work is occupied in sleeping.

FOOD—*Breakfast*—Coffee, bread, butter and cakes.*Dinner*—Lunches.*Supper*—Bread, butter, tea, steak, etc.

COST OF LIVING—

Rent	\$144	
Fuel	22	
Meat	70	
Groceries	190	
Clothing, boots and shoes, dry goods, books, papers, etc	150	
Sickness	30	
Sundries	150	
Total		\$756

CONDITION OF FAMILIES.

385

No. 81.

STREET-CAR CONDUCTOR.

Irish.

EARNINGS—Of father..... \$672

CONDITION—Family numbers 9—parents and seven children, five girls and two boys. The girls are one, two, three, five and six years of age. The boys are eight-year old twins. Family live in tenement containing 4 rooms, for which they pay \$17 per month. Four of the children attend school regularly. The father works fifteen hours per day in winter, and sixteen in summer. Father seems to be intelligent, but is afraid of his employers. Did not seem disposed to give truthful answers to questions propounded, and when asked what food they had for their different meals, declined to say.

COST OF LIVING—

Rent.....	\$204	
Fuel.....	20	
Meat and groceries.....	400	
Clothing, boots and shoes and dry goods.....	50	
Sickness.....	10	
Total.....	—	\$684

No. 82.

STREET-CAR CONDUCTOR.

Irish.

EARNINGS—Of father..... \$700

CONDITION—Family numbers 5—parents and three children, all girls, aged one, two and five years. Occupy house containing 3 rooms, and pay rent for it at the rate of \$8 per month. Father works fourteen hours in winter, and sixteen in summer, for a day's work, and receives an average of \$2 per day. Says the company are tyrants, and that the hours are entirely too many for a day's labor. House is in unhealthy locality, sewerage bad, and but one room carpeted. It takes about all he can make to pay living expenses.

FOOD—*Breakfast*—Coffee, bread and butter.
Dinner—Soup, meat, etc.
Supper—Bread, butter, cold meats and tea.

COST OF LIVING—

Rent.....	\$96	
Fuel.....	15	
Meat and groceries.....	340	
Clothing, boots and shoes and dry goods.....	75	
Books, papers, etc.....	1	
Sickness.....	100	
Sundries.....	50	
Total.....	—	\$677

No. 83.

STREET-CAR CONDUCTOR.

American.

EARNINGS—Of father..... \$728

CONDITION—Family numbers 8—parents and six children, three boys and three girls, aged five, three, eight, nine, two, eleven, respectively. Three of them go to public school. The house they occupy contains 4 rooms. A rental of \$12 per month is paid. Father works sixteen hours per day for three hundred and sixty-five days in the year, and says it is too much for any man, and considers it a hard world for a free country. The children attend Sunday-school and church, but he gets no time. It takes more money than he can earn to support his family.

FOOD—*Breakfast*—Bread, coffee, and occasionally meat.
Dinner—Bread, coffee, and occasionally meat.
Supper—Bread, coffee, and occasionally meat.

COST OF LIVING—

Rent.....	\$144	
Fuel.....	20	
Meat and groceries.....	384	
Clothing, boots and shoes, dry goods, books, papers, etc.....	150	
Sickness.....	100	
Sundries.....	100	
Total.....	—	\$898

No. 84.	STREET-CAR DRIVER.	Irish.
EARNINGS —Of father.....		\$756
CONDITION —Number in family 7—father, mother and five children, three girls and two boys, aged two, four, seven, six and eleven years. Two of the children attend day school. Family live in house containing 6 rooms, and pay \$20 rent for same. Two of the rooms are carpeted. Have sewing-machine. Furniture is "second-class." House is in a healthy location, but the rent is too high. He complains that the "street-car company is too tyrannical." He works every day in the year, and fourteen hours in winter and sixteen in summer. His expenses exceed his income.		
FOOD — <i>Breakfast</i> —Pancakes, coffee, bread and butter. <i>Dinner</i> —Soup, potatoes, bread and meat. <i>Supper</i> —Mush, oatmeal and coffee.		
COST OF LIVING —		
Rent	\$240	
Fuel.....	18	
Meat and groceries.....	332	
Clothing, boots and shoes and dry goods	150	
Books, papers, etc.....	5	
Sickness.....	18	
Total.....		\$763

No. 85.	STREET-CAR DRIVER.	Irish.
EARNINGS —Of father.....		\$819
Of son, twenty years of age.....		700
Of son, eighteen years of age.....		500
Total		\$2,019
CONDITION —Family numbers 5—father, mother and three sons, aged thirteen, eighteen and twenty years. Two of the sons are clerks in dry-goods store down street, and help furnish the home and the other expenses of living. Have an abundance of reading matter. Father works sixteen hours per day, every day in the year, and receives \$2.25 per day. The house they occupy is in a pleasant part of the city and contains 7 rooms, for which they pay \$20 per month. They live very well, indeed, but do not save much money, if any.		
FOOD — <i>Breakfast</i> —Meat, potatoes, tea, coffee, bread and butter. <i>Dinner</i> —Soup, meats, pie, cakes, etc. <i>Supper</i> —Tea, coffee, cold meats, etc.		
COST OF LIVING —		
Rent.....	\$240	
Fuel.....	75	
Meat and groceries.....	400	
Clothing.....	150	
Boot and shoes.....	50	
Dry goods.....	75	
Books, papers, etc.....	50	
Sickness.....	150	
Sundries	800	
Total.....		\$1,990

No. 86.	STREET-CAR DRIVER.	Irish.
EARNINGS —Of father.....		\$896
Of wife.....		54
Total.....		\$950
CONDITION —Family numbers 10—parents and eight children, five boys and three girls, aged from one to fifteen years. Three of the children attend school, the others "run the streets." The cottage they occupy is a miserable affair, containing four rooms, for which they pay \$7.50 per month rental. House is inconvenient and untidy. The mother goes out washing and during her absence the children do about as they please, and consequently little attention is paid to their education. The father works twelve hours each day, during fifty-one weeks of the year. He is a member of the trades' union. They live up to their income.		
FOOD — <i>Breakfast, Dinner and Supper</i> —Bread, butter, fresh and salt meat, with vegetables, etc.		
COST OF LIVING —		
Rent.....	\$90	
Fuel.....	60	
Meat and groceries.....	425	
Clothing, boots and shoes and dry goods.....	240	
Books, papers, etc.....	10	
Trades unions.....	5	
Sickness.....	25	
Sundries.....	95	
Total.....		\$950

No. 87.

STREET-CAR DRIVER.

German.

EARNINGS—Of father..... \$750

CONDITION—Family numbers 5—parents and three girls, aged two, three and five years. They occupy a house, which they rent and pay \$12 per month for, and which contains 3 rooms. The house belongs to the car company and he considers the rent exorbitant. He works sixteen hours every day in the year, and says unless he lays off from work, he never sees his children except when asleep. He receives only \$2 for sixteen hours work. Says it takes all he can earn to support his family.

FOOD—*Breakfast*—Bread, butter, cakes, meat and coffee.*Dinner*—Soup, meat, potatoes and coffee.*Supper*—Bread, butter and coffee.

COST OF LIVING—

Rent.....	\$144	
Fuel.....	17	
Meat and groceries.....	300	
Clothing, boots, shoes and dry goods.....	100	
Books, papers, etc.....	5	
Sickness.....	50	
Sundries.....	50	
Total.....		\$656

No. 88.

STREET-CAR DRIVER.

American.

EARNINGS—Of father..... \$648

CONDITION—Family numbers 6—father, mother and four children, two boys and two girls, aged two, five, seven and nine years. Three of them go to the public schools. They occupy a house containing 5 rooms, and pay rent for same at the rate of \$12 per month. Location is good, house fairly furnished, three rooms carpeted, and wife has sewing machine. Father's principal complaint is that his working hours are so long (being sixteen hours each day) that he can not see his children once a week, unless he loses time and money. He receives \$2.25 per day. They manage to save a little money each year.

FOOD—*Breakfast*—Bread, butter and tea.*Dinner*—Lunches.*Supper*—Lunches.

COST OF LIVING—

Rent.....	\$144	
Fuel.....	22	
Meat and groceries.....	168	
Clothing.....	25	
Boots and shoes.....	18	
Dry goods.....	120	
Books, papers, etc.....	3	
Sickness.....	12	
Sundries.....	36	
Total.....		\$548

No. 89.

TAILOR.

Bohemian.

EARNINGS—Of father..... \$600

CONDITION—Family numbers 6—parents and four children, all girls, ages not given. Two of them go to school regularly. The house they occupy contains 4 rooms, poorly furnished, no carpets. The children attend church. The father says he is running behind in his expenses, and considers the house rent of \$9 too high. He works eight hours in winter and ten during summer, and receives \$2 per day wages. Says the trade is run down by females and factory work. He carries no life insurance, and belongs to no unions.

FOOD—*Breakfast*—Bread, meat and coffee.*Dinner*—Soup, meat, bread, butter and potatoes.*Supper*—Meat, bread, butter and tea.

COST OF LIVING—

Rent.....	\$108	
Fuel.....	30	
Meat and groceries.....	400	
Clothing, boots, shoes and dry goods.....	150	
Sickness.....	100	
Sundries.....	100	
Total.....		\$888

No. 90.	TEAMSTER.	D:ne.
EARNINGS—Of father.....		\$840
CONDITION—Family numbers four—father, mother and two boys. Both go to school. They occupy a house containing 4 rooms, and pay rental for same at the rate of \$10 per month. Father carries some life insurance. He is only able to secure work for thirty-five weeks in the year, and considers the system of contract and convict labor detrimental to the general class of laborers and mechanics, and is also in favor of the eight-hour law, for the reason, among others, that machinery has taken the places of workmen in factories, thereby enforcing thousands of men to idleness each year. By shortening the hours of labor, many men who are now tramps would work.		
FOOD— <i>Breakfast</i> —Meat, bread and coffee. <i>Dinner</i> —Meat and sundries. <i>Supper</i> —Tea and bread.		
COST OF LIVING—		
Rent.....	\$120	
Fuel.....	50	
Meat.....	130	
Groceries.....	200	
Clothing.....	50	
Boots and shoes.....	40	
Dry goods.....	25	
Books, papers, etc.....	7	
Life insurance.....	15	
Sickness.....	10	
Sundries.....	193	
Total.....		\$840

No. 91.	TEAMSTER.	German.
EARNINGS—Of father.....		\$450
CONDITION—Family numbers 8—parents and six children, two boys and four girls, aged from one to twelve years. Three of them attend school, and the entire family go regularly to church. They rent a house containing 5 rooms, and pay a rental of \$8 per month. House is in unhealthy location, as his bill of \$40 for sickness would indicate. Carries no insurance and belongs to no unions. Father says it costs more than he can earn to support his family, and if it were not for some money that his wife had left her, they could not keep out of debt.		
FOOD— <i>Breakfast</i> —Bread and coffee. <i>Dinner</i> —Soup, meat and potatoes. <i>Supper</i> —Bread, molasses and coffee.		
COST OF LIVING—		
Rent.....	\$96	
Fuel.....	13	
Meat and groceries.....	288	
Clothing, boots and shoes and dry goods.....	100	
Sickness.....	40	
Total.....		\$537

No. 92.	TEAMSTER.	German.
EARNINGS—Of father.....		\$378
CONDITION—Family numbers 6—parents and four children, one boy and three girls, ages not stated. The children all attend school, and after school they pick up rags and coal. They rent a house of 4 rooms for \$8 per month. The rooms are miserable affairs, dirty, inconvenient and consequently unhealthy and furnished very poorly. Family is dependent upon charity for most everything they have. Father works forty-five weeks a year, and receives on an average of \$1.50 per day of from twelve to fourteen hours. The cost of living far exceeds their earnings. Had considerable sickness during past year.		
FOOD— <i>Breakfast</i> —Bread, butter and coffee. <i>Dinner</i> —Meat, bread and potatoes. <i>Supper</i> —Bread and tea.		
COST OF LIVING—		
Rent.....	\$96	
Fuel.....	12	
Meat and groceries.....	200	
Clothing, boots and shoes and dry goods.....	100	
Books, papers, etc.....	5	
Sickness.....	50	
Sundries.....	10	
Total.....		\$473

No. 93.

TEAMSTER.

Irish.

EARNINGS—Of husband..... \$530

CONDITION—Family numbers 2—husband and wife. Living in a tenement house; use 3 rooms for which they pay \$8 per month. Surroundings poor; owns his horse and wagon, has steady work about seven months of the year, during which he averages \$3 per day, the balance of the year earns enough to pay expenses

FOOD—*Breakfast*—Bread and coffee.
Dinner—Bread, meat, potatoes.
Supper—Bread, butter, tea.

COST OF LIVING—

Rent.....	\$96	
Fuel.....	25	
Meat and groceries.....	200	
Clothing, boots and shoes and dry goods.....	50	
Books, papers, etc.....	5	
Sickness.....	10	
Sundries.....	110	
Total.....		\$496

No. 94.

TELEGRAPHIST.

American.

EARNINGS—Of father..... \$1,080

CONDITION—Family numbers 4—father, mother and two children, girl two years of age, and boy four years. They occupy a rented house containing 5 rooms, and pay for same \$15 per month. His working hours are nine hours per day the year through. He says he was engaged in the general strike of last year and was working for a railway company, who took all their men back after the strike. He was very loth to give information relative to the strike, but by persistence the above facts were finally secured. He is saving some money, and seems to be well satisfied with his work and general condition.

FOOD—*Breakfast*—Bread, butter, ham and eggs and coffee.
Dinner—Bread, butter, beef and coffee.
Supper—Bread, butter, roasts, vegetables and coffee.

COST OF LIVING—

Rent.....	\$216	
Fuel, meat and groceries.....	280	
Clothing, boots and shoes and dry goods.....	250	
Books, papers, etc.....	12	
Sundries.....	110	
Total.....		\$868

No. 95.

TRUNK MAKER.

German.

EARNINGS—Of father..... \$900

CONDITION—Family numbers 5—father, mother and three girls, one, three and six years old. Two of them attend public school, and the entire family are church members. The house they occupy contains 3 rooms, and pay rent for same at the rate of \$15 per month. The house is one of a good brick block, in a very healthy location. Family dress well, seem to be intelligent, and among their other possessions they have an organ. They manage to save about \$100 per year. Father belongs to trades union, but does not carry any life insurance.

FOOD—*Breakfast*—Bread, meat and coffee.
Dinner—Meat, bread, vegetables and coffee.
Supper—Cold meat, bread and coffee.

COST OF LIVING—

Rent.....	\$180	
Fuel.....	40	
Meat and groceries.....	300	
Clothing, boots and shoes and dry goods.....	210	
Books, papers, etc.....	30	
Trades unions.....	10	
Sundries.....	25	
Total.....		\$795

No. 96

UPHOLSTERER.

Irish.

EARNINGS—Of husband \$480

CONDITION—Family numbers 2—husband and wife. Occupy a house which is very nicely furnished, containing 3 rooms, for which they pay \$7 per month. They live happily; wife is very neat and tidy, and both are intelligent. Father works forty weeks during the year, and seven hours for a days work in winter and ten in summer, for which he receives \$3 per day. He belongs to trades union, but does not carry any life insurance. Have had no sickness during the year. Their expenses about equal their earnings.

FOOD—*Breakfast*—Tea, coffee, bread and butter.
Dinner—Meat, bread, potatoes and coffee.
Supper—Tea, bread and butter.

COST OF LIVING—

Rent	\$84	
Fuel	12	
Meat and groceries	210	
Clothing, boots and shoes and dry goods	100	
Books, papers, etc	10	
Trades unions	7	
Sundries	20	
Total		\$443

No. 97.

UPHOLSTERER.

Pole.

EARNINGS—Of father \$360

CONDITION—Family numbers 4—parents and two children, two boys, aged five and nine years, and one of them attends school. They rent a house containing 3 rooms for \$5 per month, which is dirty and in an unhealthy location, consequently had considerable sickness during the past year. The children pick up coal on railway track, and while doing so, one of them was run over by the cars, thereby losing a leg. He now blacks boots and sells newspapers, but his earnings are not taken into consideration. Father carries no life insurance, and does not belong to trade union.

FOOD—*Breakfast*—Coffee, bread and lard.
Dinner—Meat, soup and potatoes.
Supper—Coffee and bread.

CONDITION—

Rent	\$60	
Fuel	10	
Meat and groceries	175	
Clothing and boots and shoes	50	
Dry goods	10	
Sickness	50	
Sundries	5	
Total		\$360

No. 98.

UPHOLSTERER.

German.

EARNINGS—Of father \$480

CONDITION—Family numbers 5—father, mother and three children, one boy aged seven, and two girls five and two years old. The house they occupy contains four cozy rooms, all nicely carpeted. Family comparatively healthy. Wife quite intelligent, and children neat and well dressed. Father belongs to trades union, and carries some life insurance. He states that he has run in debt during the past year somewhat, but principally for groceries. Father works but about forty weeks during the year, and receives \$2 per day, for seven hours work in winter and ten in summer. If he had work the entire year he would not now be in debt.

FOOD—*Breakfast*—Coffee, meat, bread and butter.
Dinner—Lunches.
Supper—Coffee, bread, potatoes and meat.

COST OF LIVING—

Rent	\$120	
Fuel	15	
Meat and groceries	260	
Clothing, boots and shoes and dry goods	100	
Books, papers, etc	4	
Life insurance	8	
Trades union	7	
Sickness	20	
Sundries	50	
Total		\$584

No. 99.

UPHOLSTERER.

German.

EARNINGS —Of father.....	\$480	
Of boy, fifteen years old.....	175	
Of girl, eighteen years old.....	300	
Total.....		\$955

CONDITION—Family numbers 7—father, mother and five children, three boys and two girls, the former aged five, nine and fifteen, and the latter eleven and eighteen years. Two of the children attend school. \$12 per month pays rent for a comfortable house containing 5 nicely furnished rooms, and all of them well carpeted. Family is intelligent, wife industrious and economical. The head of the family can only secure work for about forty weeks during the year, and receives an average of \$2 per day for his services. He belongs to trades union, and carries some life insurance. On the whole, they are a happy family.

FOOD—*Breakfast*—Tea, coffee, bread, potatoes and meat.
Dinner—Soup, meat and potatoes.
Supper—Coffee, bread and butter.

COST OF LIVING —		
Rent.....	\$144	
Fuel.....	22	
Meat and groceries.....	364	
Clothing, boots, shoes and dry goods.....	150	
Books, papers, etc.....	10	
Life insurance.....	12	
Trades unions.....	7	
Sickness.....	40	
Sundries.....	50	
Total.....		\$799

No. 100.

UPHOLSTERER.

Bohemian.

EARNINGS —Of father.....	\$420
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CONDITION—Family numbers 8—husband, wife and six children, four girls and two boys, the former aged, respectively, one month, one and a half, three and nine years, the latter five and seven. One of the children attends school; the rest of them, that are old enough, pick up coal, and go to the fruit warehouses and collect decayed fruit and other spoiled food. The family eat poor and spoiled meats, and live miserably, but seem to grow fat on it, and have but very little sickness. House contains three rooms, into which the eight persons are huddled. They pay \$6 per month for the house. Family is dirty and ignorant in the extreme. The stench from the rooms is as bad as that from the stock yards.

FOOD—*Breakfast*—Coffee and bread.
Dinner—Soup and potatoes.
Supper—Coffee and bread.

COST OF LIVING —		
Rent.....	\$72	
Fuel.....	8	
Meat and groceries.....	240	
Clothing, boots and shoes.....	80	
Dry goods.....	10	
Sickness.....	10	
Total.....		\$420

FAMILIES OUTSIDE OF CHICAGO,

In Various Cities and Towns.

No. 101.	BAGGAGE-MASTER.	American.
EARNINGS—Of husband.....		\$720
Of wife.....		280
Total.....		\$1,000

CONDITION—Family numbers 3—husband and wife, and a relative. They rent a house of 6 rooms, and pay per month for it \$17. House is comfortable, and fairly furnished—carpets on the floors, and own a sewing machine. Tenement is situated on good-sized lot, in healthy and pleasant locality. Most of the lot is neatly cultivated as a garden, with strawberries and other small fruits. Surroundings kept neat and attractive. Flowers cultivated. Wife gives meals to two or three men, and makes some money besides. Family cheerful and happy. Surplus money put in bank for future contingencies. Husband carries some life insurance.

FOOD—*Breakfast*—Beefsteak, bread, butter, potatoes and coffee.
Dinner—Boiled meats, bread, butter, potatoes, pastries and tea.
Supper—Cold meats, bread, butter, potatoes, jellies, fruits and tea.

COST OF LIVING—	
Rent.....	\$204
Fuel.....	40
Meat.....	146
Groceries.....	180
Clothing.....	25
Boots and shoes.....	35
Dry goods.....	25
Books, papers, etc.....	7
Life insurance.....	33
Sickness.....	25
Sundries.....	5
Total.....	\$725

No. 102.	BLAST-FURNACE MAN.	American.
EARNINGS—Of father.....		\$537
Of son, aged twenty-two.....		537
Total.....		\$1,074

CONDITION—Family numbers 4—father and three children, two girls and one boy. One of the children attends school. The wife died last year, and the oldest girl cares for the household. The ages of the children are from fourteen to twenty-two years. The family occupy a nice 6-room cottage, which they are paying for in installments, to the Home and Loan Association. The house is nicely furnished; rooms all carpeted except kitchen. Own sewing machine. Family intelligent, and dress and live well. The large amount shown for sickness was caused by the death in the family. They are saving some money.

FOOD—*Breakfast*—Bread, butter, meat, tea or coffee.
Dinner—Meat, potatoes, bread and butter.
Supper—Bread, butter, meat, tea or coffee.

COST OF LIVING—			
Fuel	\$60	Dry goods.....	\$35
Meat	120	Books, papers, etc.....	17
Groceries.....	300	Sickness.....	100
Clothing	75	Sundries.....	50
Boots and shoes.....	40	Total	<hr/> \$797

No. 103.	BRIDGE-BUILDER.	American.
EARNINGS—Of father.....		\$1,080

CONDITION—Family numbers 5—parents and three children, all boys, aged two, seven and ten years. Two of the boys attend school. Father owns a common house containing 3 rooms, located in bad neighborhood. Have an organ. House is poorly furnished. Family is illiterate. Father is aware of the circumstance, and is spending considerable money on the boys. Surplus money invested in real estate; owns a farm and several town lots. Father has regular work during the entire year, and receives \$90 per month for his services; carries some life insurance, but does not belong to trades union.

FOOD—*Breakfast*—Tea, bread and salt meat.
Dinner—Lunch.
Supper—Tea, boiled salt meat, vegetables, bread and butter.

COST OF LIVING—			
Fuel	\$12	Dry goods	\$50
Meat	45	Books, papers, etc	25
Groceries	240	Life insurance	8
Clothing	125	Sickness	15
Boots and shoes	35	Sundries	25
		Total	<u> </u> \$580

No. 104.	BRAKEMAN.	American.
EARNINGS —Of father.....		\$484
CONDITION —Family numbers 4—parents and two children, one boy and one girl, aged two and six years. One of them attends school. Family own their house, which contains 5 rooms, and which is in a pleasant and healthy locality, nicely furnished throughout, including kitchen. They own a sewing machine. Have a good garden in summer and own a cow. The entire family dress and live well. The husband carries some life insurance, but belongs to no union. Had no sickness in the family during the past year. The father buys some of his meals on the line of road, which are not included in the following.		
FOOD — <i>Breakfast</i> —Bread, butter and tea. <i>Dinner</i> —Salt meat, potatoes, bread, butter and tea. <i>Supper</i> —Bread, butter, sausage and tea.		
COST OF LIVING —		
Fuel.....	\$40	
Meat.....	70	
Groceries.....	225	
Clothing.....	35	
Boots and shoes.....	23	
Dry goods.....	28	
Books, papers, etc.....	15	
Life insurance.....	7	
Sundries.....	25	
Total.....		\$468

No. 105.	BRAKEMAN.	Irish.
EARNINGS —Of father.....		\$360
CONDITION —Family numbers 10—parents and eight children, six girls and two boys, aged one year to fifteen. Four of them attend public school. Family occupy a house of 3 rooms, for which they pay \$5 per month rental. The house presents a most wretched appearance. Clothes ragged, children half dressed and dirty. They all sleep in one room regardless of sex. The house is devoid of furniture, and the entire concern is as wretched as could well be imagined. Father is shiftless and does not keep any one place for any length of time. Wife is without ambition or industry.		
FOOD — <i>Breakfast</i> —Bread, coffee and syrup. <i>Dinner</i> —Potatoes, soup and bread, occasionally meat. <i>Supper</i> —Bread, syrup and coffee.		
COST OF LIVING —		
Rent.....	\$60	
Fuel.....	25	
Meat.....	20	
Groceries.....	360	
Clothing.....	50	
Boots and shoes.....	15	
Dry goods.....	30	
Books, papers, etc.....	20	
Sickness.....	5	
Total.....		\$585

No. 106.	CARPENTER.	English.
EARNINGS —Of father.....		\$528
Of son, aged eleven years.....		63
Of son, aged thirteen years.....		63
Total.....		\$654
CONDITION —Family numbers 6—parents and four children, one girl and three boys, aged two, seven, eleven and thirteen years. Two of the children attend private school. Family occupies a house which they own, and which only contains one room, but it is very large. House is clean, with common furniture, no carpets. House is in fair neighborhood as to health and general surroundings. Family respectable and intelligent and go to church regularly. The boys pick up from the coal yards all the fuel they use, and deliver daily papers before school. Surplus money goes to improve the property.		
FOOD — <i>Breakfast</i> —Bread and coffee. <i>Dinner</i> —Bread and soup. <i>Supper</i> —Coffee, bread, meat, potatoes, rice, etc.		
COST OF LIVING —		
Meat.....	\$60	
Groceries.....	175	
Clothing.....	75	
Boots and shoes.....	15	
Dry goods.....	20	
Books, papers, etc.....	25	
Life insurance.....	10	
Sickness.....	50	
Sundries.....	50	
Total.....		\$480

No. 107.	COAL MINER.	English.
EARNINGS —Of father.....		
	Of son, aged seventeen years.....	\$360
	Of son, aged fifteen years.....	180
	Total.....	180
		\$720
CONDITION —Family numbers 7—parents and five children, three boys and two girls, aged from six to twenty years. They live in their own house, which they have just finished building, and which is not quite all paid for yet. House contains 5 rooms, but as yet not well furnished. They own sewing machine, dress neatly, attend church, and are comparatively intelligent, and will prosper if work remains good. They have a good garden and family are industrious. Father belongs to trades union, but carries no life insurance. They are saving some money to finish payments on house, and to furnish it better.		
FOOD — <i>Breakfast</i> —Bread, butter, toast, meat and coffee.		
<i>Dinner</i> —Cold meat, bread, pie, cheese and tea.		
<i>Supper</i> —Bread, meat, vegetables, fruit and tea.		
COST OF LIVING —		
	Fuel.....	\$25
	Meat.....	125
	Groceries.....	250
	Clothing.....	75
	Boots and shoes.....	35
	Dry goods.....	40
	Books, papers, etc.....	5
	Trades unions.....	5
	Sickness.....	15
	Total.....	\$575

No. 108.	COAL MINER.	American.
EARNINGS —Of father.....		
	Of son, aged fifteen years.....	\$432
	Total.....	240
		\$672
CONDITION —Family numbers 4—parents and two children, male and female, aged respectively fifteen and seventeen years. The boy is at work. Family live in their own house, containing 4 rooms, neatly furnished with good, substantial furniture, carpeted, and have organ and sewing machine, also good garden; keep pigs and chickens. Family dress well and attend church. They seem to live well, but not extravagantly, and are probably putting away a little money. Father belongs to trades union. Have had some sickness in the family but not a great deal.		
FOOD — <i>Breakfast</i> —Bread, butter, eggs or meat and coffee.		
<i>Dinner</i> —Cold meat, bread, cheese, pie or cake, and tea.		
<i>Supper</i> —Bread, meat, eggs, butter, vegetables, preserves and tea.		
COST OF LIVING —		
	Fuel.....	\$25
	Meat.....	80
	Groceries.....	250
	Clothing.....	40
	Boots and shoes.....	20
	Dry goods.....	30
	Books, papers, etc.....	2
	Trades unions.....	2
	Sickness.....	15
	Total.....	\$464

No. 109.	COAL MINER.	American.
EARNINGS —Of father.....		
		\$405
CONDITION —Family numbers 3—parents and one child, a girl of six years, and she attends school. Family live in their own house, which is a good one, and contains 3 rooms, which are cheaply furnished and have rag carpets. They have a large garden, fowls, and show evidences of strict economy. Family attend church regularly. Own sewing machine. Father fairly industrious and very steady. He receives \$1.50 per day of 10 hours for his labor, and works 45 weeks of the year. Does not belong to trades union, nor does he carry any life insurance.		
FOOD — <i>Breakfast</i> —Bread, butter, molasses, eggs, sometimes meat.		
<i>Dinner</i> —Cold meat, bread, butter, pie or cake and tea.		
<i>Supper</i> —Bread, meat, vegetables, molasses, fruit and tea.		
COST OF LIVING —		
	Fuel.....	\$20
	Meat.....	72
	Groceries.....	100
	Clothing.....	25
	Boots and shoes.....	12
	Dry goods.....	20
	Sickness.....	15
	Total.....	\$264

No. 110.

COAL MINER.

Scotch.

EARNINGS —Of father.....	\$315	
Of son, aged sixteen years.....	210	
Of son, aged fourteen years.....	75	
Total.....		\$600

CONDITION—Family numbers 5—parents and three children, two boys and one girl, aged eight, fourteen and sixteen years. Two of the boys are at work, the girl at home. The family occupy a good, brick house, containing 4 rooms, for which they pay a rental of \$10 per month. The house is neatly furnished and carpeted. They have a large garden and plenty of small fruit. Family seem to be intelligent and dress neatly. Father works thirty-five weeks of the year, and receives \$1.50 per day for his labor. If it were not for the assistance rendered by the boys, they would overrun their earnings; as it is they save no money.

FOOD—*Breakfast*—Bread, butter, meat, potatoes and tea.
Dinner—Bread, butter, meat, cheese and tea.
Supper—Bread, butter, fruit, molasses, cake and tea.

COST OF LIVING —		
Rent.....	\$120	
Fuel.....	30	
Meat.....	100	
Groceries.....	200	
Clothing.....	75	
Boots and shoes.....	30	
Dry goods.....	25	
Books, papers, etc.....	8	
Sickness.....	10	
Total.....		\$598

No. 111.

COAL MINER.

Welch.

EARNINGS —Of father.....	\$480
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CONDITION—Family numbers 5—parents and three children, one boy and two girls, from one to eight years. One of the boys attends school. Family occupy a fair house, which they own, and which contains four rooms. Furniture very plain and scant. Own sewing-machine and have a large garden. Father also owns another house which he rents for \$60 per year. He is very industrious, and pretty steady. Receives \$2 per day for his work, and works forty weeks of the year. Wife is economical and tidy. They have pigs and chickens, and are saving some money. Father belongs to trades union, but carries no life insurance.

FOOD—*Breakfast*—Bread, butter, potatoes, meat or eggs and coffee.
Dinner—Bread, butter, meat, cheese, pie and tea.
Supper—Bread, meat, vegetables, butter and tea.

COST OF LIVING —		
Fuel.....	\$25	
Meat.....	90	
Groceries.....	140	
Clothing.....	40	
Boots and shoes.....	20	
Dry goods.....	25	
Books, papers, etc.....	2	
Trades union.....	6	
Total.....		\$348

No. 112.

COAL MINER.

American.

EARNINGS —Of father.....	\$250
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CONDITION—Family numbers 7—husband wife, and five children, three girls and two boys, aged from three to nineteen years. Three of them go to the public school. Family live in 2 rooms tenement, in healthy locality, for which they pay \$6 per month rent. The house is scantily furnished, without carpets, but is kept neat and clean. They are compelled to live very economically, and every cent they earn is used to the best advantage. Father had only thirty weeks work during the past year. He belongs to trades union. The figures for cost of living are actual and there is no doubt the family lived on the amount specified

FOOD—*Breakfast*—Bread, coffee and salt meat.
Dinner—Meat, bread, coffee and butter.
Supper—Sausage, bread and coffee.

COST OF LIVING—			
Rent.....	\$72	Dry goods.....	20
Fuel.....	20	Trades union.....	3
Meat.....	20	Sickness.....	10
Groceries.....	60	Sundries.....	5
Clothing.....	28	Total.....	_____
Boots and shoes.....	15		\$253

No. 113.

COAL MINER.

German.

EARNINGS—Of father..... \$225

CONDITION—Family numbers 6—parents and four children, three boys and one girl, aged from one to ten years. Two of them attend school regularly. Family live in a house containing 2 rooms, for which they pay \$6 per month rent. House is neatly kept, but scantily furnished, and the furniture is poor and cheap. They have a sewing machine. Family is ordinarily intelligent. Father only had twenty-five weeks' work during the past year, for which he received \$9 per week. He belongs to trades union. His boys will be able to assist in two or three years, and with that and more work for himself he will do better.

FOOD—*Breakfast*—Bread, coffee and sausage.
Dinner—Meat, coffee, vegetables and bread.
Supper—Meat, bread and coffee.

COST OF LIVING—

Rent	\$72	
Fuel	24	
Meat	60	
Groceries	60	
Clothing	10	
Boots and shoes	6	
Dry goods	10	
Trades unions	3	
Sundries	15	
Total		\$260

No. 114.

COAL MINER.

German.

EARNINGS—Of father..... \$241

CONDITION—Family numbers 6—parents and four children, two boys and two girls, aged four, eight, ten and twelve years. Two of them attend the public school regularly. Family live in their own house, which contains only 2 rooms, which are poorly furnished, with no carpets on the floors. They find it very difficult to live, and in fact exceed their income. They have seen better times. Father only had twenty-nine weeks' work last year, and his children are too young to render any material assistance as yet. Father belongs to trades union.

FOOD—*Breakfast*—Bread, sausage and coffee.
Dinner—Bread, meat and potatoes.
Supper—Bread, butter and coffee.

COST OF LIVING—

Fuel	\$20	
Meat	75	
Groceries	88	
Clothing	40	
Boots and shoes	20	
Dry goods	15	
Trades union	3	
Sickness	15	
Sundries	5	
Total		\$281

No. 115.

COAL MINER.

German.

EARNINGS—Of father..... \$250

CONDITION—Family numbers 7—parents and five children, three girls and two boys, aged from four to fourteen years. Four of them attend school. Father owns a home containing 2 rooms in which they are all crowded. House is ordinarily furnished, have no carpets on the floor. Own a sewing machine. The father insisted that the cost of living would not exceed the figures given in this statement. They live very economically. Father carries some life insurance, and belongs to trades union. Had very little sickness in the family, and wastes no money.

FOOD—*Breakfast, Dinner, Supper*—Ordinary food.

COST OF LIVING—

Fuel	\$16	
Meat	72	
Groceries	100	
Clothing	25	
Boots and shoes	25	
Dry goods	10	
Books, papers, etc	2	
Life insurance	12	
Trades unions	3	
Sickness	10	
Sundries	5	
Total		\$280

No. 116.	COAL-MINER.	American.
EARNINGS —Of father.....		
Of son—aged 19 years.....		\$250
Total.....		250
		\$500
CONDITION —Family numbers 5—parents and four children, aged ten, twelve, fourteen and nineteen years. Two of the children attend public school, and the elder boy is at work with his father in the mine, and receives the same pay per week. Family occupy a house containing two rooms, for which a payment per month of \$6 is made for rent. House is poorly furnished, no carpets or sewing machine. House is in a barren lot, no trees or shrubbery, and in fact is a good sample of the homes the majority of coal-miners about him occupy. Father belongs to trades union.		
FOOD — <i>Breakfast</i> —Bread, sausage and coffee.		
<i>Dinner</i> —Meat, bread, coffee and vegetables,		
<i>Supper</i> —Bread, coffee and sausage.		
COST OF LIVING —		
Rent.....		\$72
Fuel.....		25
Meat.....		100
Groceries.....		150
Clothing.....		30
Boots and shoes.....		20
Dry goods.....		20
Books, papers, etc.....		2
Trades unions.....		3
Sickness.....		25
Sundries.....		45
Total.....		\$492

No. 117.	COAL-MINER.	English.
EARNINGS —Of father.....		
Of son nineteen years of age.....		\$250
Of son seventeen years of age.....		250
Total.....		120
		\$620
CONDITION —Family numbers 8—husband, wife and six children, five boys and one girl, aged ten, twelve, fourteen, seventeen and girl and boy of nineteen, who are twins. Three of the children attend school, and two of them are at work. The eldest son receives the same wages \$8.33 per week as his father, the other son \$4 per week. Family occupy a house containing 4 rooms, for which they pay \$9 per month rent. House is moderately furnished. Have no carpets or sewing machine. Family of ordinary intelligence. Husband belongs to trades union.		
FOOD — <i>Breakfast</i> —Breat, meat and coffee.		
<i>Dinner</i> —Meat, bread, butter and vegetables.		
<i>Supper</i> —Bread, coffee and sausage.		
COST OF LIVING —		
Rent.....		\$118
Fuel.....		25
Meat.....		100
Groceries.....		150
Clothing.....		65
Boots and shoes.....		40
Dry goods.....		30
Books, papers, etc.....		5
Trades unions.....		6
Sickness.....		25
Sundries.....		25
Total.....		\$589

No. 118.

COAL-MINER.

English.

EARNINGS—Of father.....

\$250

CONDITION—Family numbers 3—parents and one two-year-old girl. They occupy an ordinary house, containing 2 rooms, and pay a rental of \$6 per month for it. House is very poorly furnished, no carpets, and in fact have nothing except the bare necessities of life. Family living beyond their means. Father complains of the low wages, the average being \$8.33 per week, and was only at work thirty weeks of the past year. Says miners formerly received higher wages. He run behind in his expenses last year. He belongs to trades union.

FOOD—*Breakfast*—Bread, coffee and sausage.

Dinner—Meat, vegetables and bread.

Supper—Meat, bread and coffee.

COST OF LIVING—

Rent.....	\$72	Dry goods.....	\$10
Fuel.....	25	Books, papers, etc.....	2
Meat.....	50	Trades unions.....	3
Groceries.....	85	Sickness.....	10
Clothing.....	20	Sundries.....	30
Boots and shoes.....	10	Total.....	\$317

No. 119.	COAL MINER.	Scotch.
EARNINGS—Of husband.....		\$203
CONDITION—Family numbers 2—husband and wife. They occupy a miserable house of 2 rooms, and pay rent for same at the rate of \$5 per month. House is very poorly furnished, no carpets on the floors, and is unhealthy and very unattractive, as are the surroundings. Have no sewing machine. Husband worked only twenty-nine weeks of the past year, and received only an average of \$7 per week for his labor. By practicing the utmost economy they managed to live almost within their means. Husband belongs to trades union.		
COST OF LIVING—		
Rent.....	\$60	
Fuel.....	15	
Meat.....	30	
Groceries.....	60	
Clothing.....	10	
Boots and shoes.....	7	
Dry goods.....	10	
Trades unions.....	3	
Sundries.....	10	
Total.....		\$205

No. 120.	COAL MINER.	Scotch.
EARNINGS—Of husband.....		\$233
CONDITION—Family of 2—husband and wife. Live in house containing 2 rooms, for which they pay \$5 per month rent. House kept neat, but poorly furnished. Have no carpets on the floors. One sewing machine, which the wife paid for by sewing. Surroundings very unattractive. Husband only secured work during twenty-eight weeks of the year, and received an average of \$8 33 per week for his labor. He belongs to a trades union. Although practicing the utmost economy they could not keep out of debt.		
FOOD— <i>Breakfast</i> —Bread, coffee and sausage. <i>Dinner</i> —Bread, meat and vegetables. <i>Supper</i> —Bread, coffee and sausage.		
COST OF LIVING—		
Rent.....	\$60	
Fuel.....	20	
Meat.....	50	
Groceries.....	75	
Clothing.....	15	
Boots and shoes.....	9	
Dry goods.....	20	
Books, papers, etc.....	2	
Trades unions.....	3	
Sundries.....	30	
Total.....		\$284

No. 121.	COAL MINER.	Scotch.
EARNINGS—Of father.....	\$210	
Of son, fifteen years old.....	100	
Total.....		\$310
CONDITION—Family numbers 3—parents and one boy fifteen years of age. Family live in house containing 2 rooms, for which they pay rent at the rate of \$5 per month. The house is very poorly furnished; in fact, they have nothing but what they actually need, and are trying very hard to live within their means. Father only had thirty weeks work during the past year, and received but \$7 per week for his labor. What work the son could secure, brought him in \$100, which went for the support of the family, or they would have been considerably in debt. Father belongs to trades union.		
FOOD— <i>Breakfast</i> —Sausage, bread and coffee. <i>Dinner</i> —Meat, bread, coffee and vegetables. <i>Supper</i> —Bread, coffee and meat.		
COST OF LIVING—		
Rent.....	\$60	
Fuel.....	20	
Meat.....	75	
Groceries.....	100	
Clothing.....	25	
Boots and shoes.....	10	
Dry goods.....	10	
Trades unions.....	3	
Sundries.....	5	
Total.....		\$308

No. 122.	COAL MINER.	Scotch.
EARNINGS—Of father		\$478
CONDITION —Family numbers 7—father, mother and five children, three girls and two boys, aged from four to fourteen. Two of the children attend school regularly. Family occupy house containing 2 rooms, which is furnished scantily. They pay \$4 per month rent for the house. Family are generally healthy. Father worked forty-two weeks last year at an average of \$1.80 per day, and made \$15 outside of the mine doing odd jobs. He has worked outside and inside the mines. Has not saved any money, and says he never expects to as a coal miner. He does not belong to trades union.		
FOOD — <i>Breakfast</i> —Bread, butter, coffee and sometimes meat. <i>Dinner</i> —Bread, butter, meat, pie, cake and tea. <i>Supper</i> —Potatoes, meat, soup, pudding, bread and butter.		
COST OF LIVING—		
Rent.....	\$48	
Fuel.....	9	
Meat.....	96	
Groceries.....	240	
Clothing, boots and shoes and dry goods.....	60	
Books, papers, etc.....	10	
Sickness.....	3	
Sundries.....	5	
Total.....		\$471

No. 123.	COAL MINER.	Scotch.
EARNINGS—Of father		\$540
CONDITION —Family numbers 5—parents and three children, all boys, aged two to five and six years. One of the children attends public school. They live in a house containing 3 rooms, and pay \$4 per month rent for the same. The house is fairly furnished and comfortable. Have had quite a good deal of sickness in the family during the past year, still the father considers he did very well. He is a hard worker and had "entry" work part of the time. He worked forty-five weeks of the year and received an average of \$2 per day for eleven hours each day during winter and summer.		
FOOD — <i>Breakfast</i> —Potatoes, bread and butter, sometimes meat. <i>Dinner</i> —Bread, butter, meat and pie. <i>Supper</i> —Bread, butter, potatoes and meat, pie and fruit occasionally.		
COST OF LIVING—		
Rent.....	\$48	
Fuel.....	8	
Meat.....	60	
Groceries.....	180	
Clothing.....	40	
Boots and shoes.....	25	
Dry goods.....	50	
Books, papers, etc.....	5	
Sickness.....	40	
Total.....		\$456

No. 124.	COAL MINER.	Scotch.
EARNINGS—Of father		\$630
CONDITION —Family numbers 5—parents and three children, from five to thirteen years of age. They all attend school. Family live in house, which they own, and which contains 3 rooms well furnished, healthy location, and comfortably situated. Father has forty-two weeks' work at "driving entry" and worked steady during that time, and received about \$2.50 per day for ten hours work. Family are healthy. Father belongs to a "Friendly Society" but to no union or trades organization.		
FOOD — <i>Breakfast</i> —Bread, butter, meat and coffee. <i>Dinner</i> —Bread, butter, meat and cheese. <i>Supper</i> —Potatoes, meat, vegetables, pudding and tea.		
COST OF LIVING—		
Fuel.....	\$10	
Meat.....	60	
Groceries.....	360	
Clothing.....	60	
Boots, shoes and dry goods.....	30	
Books, papers, etc.....	5	
Sickness.....	5	
Sundries.....	10	
Total.....		\$540

No. 125.	COAL MINER.	Scotch.
EARNINGS —Of father.....		
Of son.....		\$400
Total.....		60
CONDITION —Family numbers 7—parents and five children, two girls and three boys, aged from six to fifteen years. Family occupy rented house containing 8 rooms, for which they pay \$5 per month. House is pleasantly furnished and family quite healthy. Three of the children attend school. During part of the year past they had table boarders, but the expense of keeping them and the income derived therefrom is not considered in this statement. From his earnings and cost of living it will be seen that he apparently ran behind, but the amount paid by the boarders enabled him to come out about even. He thinks much more of this country than of Scotland.		\$460
FOOD — <i>Breakfast</i> —Bread, butter, meat and tea.		
<i>Dinner</i> —Bread, butter, meat and tea.		
<i>Supper</i> —Potatoes, meat, butter, bread and dessert.		
COST OF LIVING —		
Rent.....		\$60
Fuel.....		9
Meat.....		80
Groceries.....		320
Boots and shoes.....		50
Books, papers, etc.....		10
Sickness.....		8
Sundries.....		25
Total.....		\$557

No. 126.

COAL MINER.

Scotch.

EARNINGS—Of father.....

\$360

CONDITION—Family numbers 6—parents and three children, all girls, aged one, two and four years; too young to go to school. Family live in tenement of 3 rooms for which monthly payments at the rate of \$6 are made. One room is carpeted, three rooms are comfortably but plainly furnished. Wife has sewing machine. Family are healthy having had no sickness during past year. Father worked only 32 weeks during the year, at about \$1.50 per day, but was fortunate enough to secure outside work when the mines were not being worked, or he would not have been able to pay half the family expenses; as it is he is about \$40 in debt.

FOOD—*Breakfast*—Bread, butter, sometimes a little meat, eggs and coffee.

Dinner—Same as breakfast.

Supper—Potatoes, sometimes meat, bread, butler, pastry and fruit.

COST OF LIVING—

Rent	\$72	Books, papers, etc	\$6
Fuel	12	Trades union.....	3
Meat and groceries	280	Sundries	6
Clothing, boots and shoes and dry goods.....	20	Total	—————

\$399

No. 127.

COAL MINER.

Irish.

EARNINGS—Of father \$399

CONDITION—Family numbers 6—father, mother and four children, one boy and three girls aged from one to seven years; two of them go to school. Father owns a comfortable house of seven rooms, nicely furnished, and carpets on all the floors, pictures, mottoes, etc., on the walls. Father is a sober and industrious man, and worked all that he had opportunity to, saved some money in past years and invested in property, now valued at about \$5,000, from which he realizes enough to pay debts as they become due. He intends giving his children a college education, and have them do something besides coal mining which he will quit soon himself. Family members of Church of Rome.

FOOD—Breakfast—Bread, butter and tea.

Dinner—Bread, butter, meat, pie and tea.

Supper—Vegetables, meat, bread, butter, fruits and tea.

COST OF LIVING—

Fuel	\$12	Books, papers, etc.....	\$10
Meat.....	60	Life insurance.....	28
Groceries	110	Sickness	40
Clothing.....	60	Sundries	20
Boots and shoes.....	30	Total	—————
Dry goods.....	36		

\$406

No. 128.	COAL MINER.	Irish.
EARNINGS —Of father.....		\$360
CONDITION —Family numbers 4—parents and two children, both girls, aged one and six years. Father owns a house containing 2 rooms, which are barely furnished, but are kept clean and as comfortable as his circumstances will permit of. He was once in somewhat better shape, but owing to an 8 months' lock-out at Braidwood, he got behind, and finds it difficult to catch up again. He is a sober, industrious and economical man. Wastes nothing in drink or extravagance. He belongs to a benevolent society and to trades union. Thinks laboring-men's prospects are having a downward tendency.		
FOOD — <i>Breakfast</i> —Bread, butter, meat and coffee.		
<i>Dinner</i> —Same.		
<i>Supper</i> —Vegetables, meat, soup and tea.		
COST OF LIVING —		
Fuel.....	\$10 00	
Meat.....	60 00	
Groceries.....	210 00	
Clothing.....	40 00	
Boots, shoes and dry goods.....	30 00	
Books, papers, etc.....	4 00	
Trades unions.....	3 50	
Sundries.....	9 50	
Total.....		\$367

No. 129.	COAL MINER.	Irish.
EARNINGS —Of father.....		\$368
Of son, seventeen years of age.....		368
Of son, fourteen years of age.....		172
Total.....		\$908
CONDITION —Family numbers 9—parents and seven children, five boys and two girls, their ages ranging from two to seventeen years. Three of these attend school, and the two oldest boys work in the mines. Family occupy a house containing 3 rooms, with an addition of a shanty, for which they pay \$5 per month rent. Father is an industrious and hard-working man, but only had thirty weeks work during the year. He is a leader among his class, is a great reader, belongs to temperance society, life insurance society, and trades union. Family healthy, and members of a church. They work half an acre of land, and raise vegetables enough for family use. They are making payments on a lot, sewing machine and back debts.		
FOOD — <i>Breakfast</i> —Bread, butter, meat and coffee.		
<i>Dinner</i> —Bread, butter, cheese or meat and tea.		
<i>Supper</i> —Meat, potatoes, vegetables, bread, butter, pie and tea.		
COST OF LIVING —		
Rent.....	\$60	
Fuel.....	15	
Meat.....	120	
Groceries.....	360	
Clothing.....	170	
Boots, shoes and dry goods.....	63	
Books, papers, etc.....	8	
Life insurance.....	30	
Trades unions.....	5	
Sickness.....	4	
Sundries.....	63	
Total.....		\$898

No. 130.	COAL MINER.	Irish.
EARNINGS —Of father.....		\$420
Of son, twenty-one years of age.....		420
Of son, eighteen years of age.....		420
Of son, sixteen years of age.....		150
Total.....		\$1,410
CONDITION —Family numbers 6—parents and four children, three boys and one girl. The girl attends school, and the three boys are working in the mine. Father owns a house of six rooms, which is clean and very comfortably furnished. Family temperate, and members of a church, which they attend with regularity. They have an acre of ground, which they work in summer, and raise vegetables for their consumption. They have their house about paid for, payments being made in installments of \$240 per year. Father belongs to mutual assessment association and to trades union.		
FOOD — <i>Breakfast</i> —Steak, bread, butter, potatoes, bacon and coffee.		
<i>Dinner</i> —Bread, butter, meat, cheese, pie and tea.		
<i>Supper</i> —Meat, potatoes, bread, butter, puddings, pie and coffee.		
COST OF LIVING —		
Rent.....	\$240	Books, papers, etc..... \$15
Fuel.....	10	Life insurance..... 18
Meat.....	200	Trades unions..... 3
Groceries.....	700	Sickness..... 4
Clothing.....	80	Sundries..... 75
Boots, shoes and dry goods.....	70	Total.....
		\$1,415

No. 131.	COAL MINER.	German.
EARNINGS—Of father.....		\$200
CONDITION— Family numbers 6—parents and four children, two boys and two girls, aged two, four, nine and eleven years. Two of them attend school. Family occupy a house containing 3 rooms, for which they pay \$60 per annum. Father works all he can, and only receives \$1 per day for his labor. He has only been in this country 2½ years, and is anxious to get back to Germany. The house is miserably furnished, and is a wretched affair in itself. They have a few broken chairs and benches and a bedstead. Father is a shoemaker by trade, and does some cobbling which helps a little toward supporting his family. He receives the lowest wages in the shaft.		
FOOD— <i>Breakfast</i> —Bread and coffee. <i>Dinner</i> —Bread, meat and coffee. <i>Supper</i> —Bread, meat, potatoes and coffee.		
COST OF LIVING—		
Rent.....	\$60	
Meat.....	36	
Groceries.....	84	
Clothing.....	12	
Boots and shoes and dry goods.....	15	
Sickness.....	1	
Sundries.....	20	
Total.....		\$228

No. 132.	ENGINEER (LOCOMOTIVE).	American.
EARNINGS—Of father.....		\$1,277
CONDITION— Family numbers 4—parents and two children, one girl and one boy, aged thirteen and fifteen years, and both attend school regularly. Family live in a good house containing 7 rooms, for which they pay rental of \$11 per month. House is in healthy locality, surroundings pleasant, and garden full of flowers during summer. General appearance of family neat and clean. House is well furnished; carpets on the floors. Have a piano and sewing machine. Family intelligent, and go to church, and dress well. Father carries some life insurance.		
FOOD— <i>Breakfast</i> —Bread, coffee, fruits, vegetables and meat. <i>Dinner</i> —Bread, meat, vegetables, fruits and pastries. <i>Supper</i> —Bread, coffee, cold meats and fruits.		
COST OF LIVING—		
Rent.....	\$132	
Fuel.....	36	
Meat.....	91	
Groceries.....	150	
Clothing.....	75	
Boots and shoes.....	58	
Dry goods.....	100	
Books, papers, etc.....	12	
Life insurance.....	42	
Sickness.....	50	
Sundries.....	50	
Total.....		\$826

No. 133.	FITTER IN CORN PLANTER WORKS.	American.
EARNINGS—Of father.....		\$648
CONDITION— Family numbers 3—parents and a nine-year-old boy, who attends school. Family occupy a small comfortable house containing 4 rooms, which they own, but it is mortgaged for one-third its value. Home is in pleasant and healthy location, with flower garden. Home is neatly furnished, with carpets on all floors but the kitchen. Family intelligent and dress well, and are very good representatives of the working class of people. Father out of work at present. He worked 36 weeks of the last year at piece work, and received an average of \$3 per day for his labor. He carries some life insurance and belongs to trades organization.		
FOOD— <i>Breakfast</i> —Bread, butter, eggs and coffee. <i>Dinner</i> —Bread, butter, meat, vegetables, pastry and tea. <i>Supper</i> —Bread, butter, sauce, cake and tea.		
COST OF LIVING—		
Interest, etc.....	\$140	
Fuel.....	20	
Meat.....	52	
Groceries.....	175	
Clothing.....	40	
Boots and shoes.....	12	
Dry goods.....	20	
Books, papers, etc.....	12	
Life insurance.....	21	
Trades unions.....	3	
Sundries.....	16	
Total.....		\$511

No. 134.

HEATER (BAR MILL).

Irish.

EARNINGS—Of father.....	\$1,776
CONDITION—Family numbers 5—parents and three children, two girls and one boy, aged four, six and eight years. Two of them attend school. Father owns a house of 4 rooms, which is comfortable furnished. Have carpets in all rooms but the kitchen. Have sewing machine. House in healthy locality; surroundings ordinary. Family intelligent, and live comfortably but economically. Father receives \$8 per day for his work, and saves considerable money for a working man. Surplus money is invested in property.	
FOOD— <i>Breakfast</i> —Bread, fruits, meat, coffee and butter. <i>Dinner</i> —Meat, bread, vegetables and butter. <i>Supper</i> —Meat, coffee, eggs and butter.	
COST OF LIVING—	
Fuel	\$45
Meat.....	115
Groceries	195
Clothing	45
Boots and shoes.....	30
Dry goods.....	50
Books, papers, etc	8
Sickness	25
Sundries	50
Total	\$563

No. 135.

HEATER (BAR MILL).

English.

EARNINGS—Of father.....	\$1,332
Of son, aged sixteen years	222
Total	\$1,554
CONDITION—Family numbers 5—parents and three children, two girls and one boy, aged respectively twelve, sixteen and eighteen years; two of them attend school; the other at work at \$1 per day. They occupy house containing 5 rooms, and pay for it \$15 per month. House is well furnished; carpets on the floors. Own sewing machine. House is in healthy locality. Family is comparatively intelligent; live and dress well, but not extravagantly. Father receives \$6 per day for his work, and saves some money. He had but thirty-seven weeks' work during the year.	
FOOD— <i>Breakfast</i> —Bread, butter, meat, potatoes and coffee. <i>Dinner</i> —Meat, bread, vegetables, coffee and eggs. <i>Supper</i> —Meat, coffee and bread.	
COST OF LIVING—	
Rent	\$180
Fuel	50
Meat.....	150
Groceries	250
Clothing.....	60
Boots and shoes.....	30
Dry goods	75
Books, papers, etc.....	9
Sickness	25
Sundries	75
Total	\$904

No. 136.

IRON AND STEEL WORKER.

Irish.

EARNINGS—Of father.....	\$1,170
CONDITION—Family numbers 6—parents and four children, two boys and two girls, aged one to seven years. Two of the children attend school. Family live in their own house, which contains 12 rooms, which is situated in a pleasant and healthy locality, and which is nicely furnished, with Brussels carpets on all the floors down stairs. They have a sewing machine. Family are intelligent, dress well, and attend church. This family is in good circumstances, and own other good property in the city. Father carries some life insurance and belongs to trades union. His wages average \$6 per day.	
FOOD— <i>Breakfast</i> —Bread, butter, meat and coffee. <i>Dinner</i> —Bread, butter, meat, pie or cake. <i>Supper</i> —Potatoes, tea, meat, rice or sauce.	
COST OF LIVING—	
Fuel.....	\$75
Meat.....	120
Groceries	300
Clothing.....	50
Boots and shoes.....	30
Dry goods.....	25
Books, papers, etc	\$10
Life insurance.....	12
Trades unions.....	6
Sickness.....	10
Sundries	40
Total.....	\$678

No. 137.	IRON AND STEEL WORKER.	English.
EARNINGS—		
Of father.....		\$1,420
Of son, aged fourteen.....		300
Total.....		\$1,720
CONDITION— Family numbers 6—parents and four children; two boys and two girls, aged from seven to sixteen years. Three of them attend school, and the other works in the shop with his father. Family occupy their own house, containing 9 well-furnished rooms, in a pleasant and healthy locality. They have a good vegetable and flower garden. They live well, but not extravagantly, and are saving about a thousand dollars per year. Father receives an average of \$7 per day of twelve hours, for his labor, and works about thirty-four weeks of the year. Belongs to trades union, but carries no life insurance. Had but little sickness during the year.		
FOOD— <i>Breakfast</i> —Bread, butter, meat, eggs and sometimes oysters. <i>Dinner</i> —Potatoes, bread, butter, meat, pie, cake or pudding. <i>Supper</i> —Bread, butter, meat, rice or sauce, and tea or coffee.		
COST OF LIVING—		
Fuel.....		\$55
Meat.....		100
Groceries.....		300
Clothing.....		75
Boots and shoes.....		50
Dry goods.....		50
Books, papers, etc.....		10
Trades unions.....		6
Sickness.....		12
Sundries.....		50
Total.....		\$708

No. 138.	IRON AND STEEL WORKER.	Irish.
EARNINGS— Of father.....		
		\$756
CONDITION— Family numbers 4—parents and two children, one boy and one girl, aged respectively eight and six years. One of the children attends public school. Family occupy their own house, containing 5 rooms; also owns a farm upon which is a mortgage. Has a good garden in summer time, a cow and a horse. Has had considerable sickness in the family, but avoids doctors as much as possible. Family dress well; are clean and neat and intelligent, and attend church. This man is paid by the ton, or piece, and has work for only about forty-two weeks of the year, and averages about \$3 per day. Father belongs to trades unions.		
FOOD— <i>Breakfast</i> —Potatoes, bread, butter, meat and coffee. <i>Dinner</i> —Bread, butter, meat, pie or cake. <i>Supper</i> —Potatoes, meat, bread, butter and tea.		
COST OF LIVING—		
Fuel.....		\$40
Meat.....		84
Groceries.....		200
Clothing.....		20
Boots and shoes.....		16
Dry goods.....		20
Trades unions.....		6
Sickness.....		10
Sundries.....		30
Total.....		\$426

No. 139.	LABORER.	American.
EARNINGS— Of father.....		
		\$270
CONDITION— Family numbers 5—parents and three children, two girls and one boy, aged from six months to six years. Too young to attend school. Family occupy their own house containing four rooms, which are nicely furnished and carpeted. They have a sewing-machine. In summer they have a large garden which helps them considerably. The whole family are very neat and respectable in appearance. Father had only thirty-six weeks' work last year, on account of the rolling-mill shutting down the rest of the year. He carries some life insurance, and belongs to trade organization.		
FOOD— <i>Breakfast</i> —Bread, butter and tea. <i>Dinner</i> —Potatoes, salt meat, bread and butter. <i>Supper</i> —Bread, butter and coffee.		
COST OF LIVING—		
Fuel.....		\$39
Meat.....		40
Groceries.....		175
Clothing.....		25
Boots and shoes.....		20
Dry goods.....		30
Books, papers, etc.....		3
Life insurance.....		12
Trades unions.....		12
Sickness.....		10
Sundries.....		20
Total.....		\$386

No. 140.

LABORER.

American.

EARNINGS—Of father..... \$400

CONDITION—Family numbers 7—parents and five children; three boys and two girls, ages not given. The family live in a house containing 4 rooms, which they own, with the exception of a mortgage of \$150. The children as well as parents are bright and intelligent; their dress is plain but clean. Rooms are all covered with clean rag carpets. Own a sewing machine. Mother is industrious and ambitious. They have a large and well cultivated garden. They live plainly but comfortably. Father belongs to trades union.

FOOD—*Breakfast*—Bread, butter and coffee.*Dinner*—Potatoes, meat, bread butter and coffee.*Supper*—Bread and tea, but frequently corn meal mush.

COST OF LIVING—

Fuel	\$40
Meat	65
Groceries	185
Clothing	50
Boots and shoes	25
Dry goods	17
Books, papers, etc.	13
Trades union	4
Sickness	20
Sundries	25
Total	<hr/> \$444

No. 141.

LABORER.

Irish.

EARNINGS—Of father..... \$450

CONDITION—Family numbers 5—parents and three children, two girls, and one boy aged from one to five years; too young to go to school yet. Family occupy their own house, which has 6 rooms in it; the house is not very nicely furnished. They have a sewing machine. Family attends church every Sunday. Father received \$2 per day for his work, but the rolling mill in which he worked was closed all but 35 weeks of the year. He managed to secure odd jobs during that time, which helped him to keep out of debt. Carries no life insurance, and belongs to no trades organization.

FOOD—*Breakfast*—Bread, butter, coffee, occasionally meat.*Dinner*—Bread, butter, potatoes and meat.*Supper*—Bread butter, tea or coffee.

COST OF LIVING—

Fuel	\$50
Meat	60
Groceries	200
Boots and shoes	15
Dry goods	10
Books, papers, etc.	3
Sickness	10
Sundries	58
Total	<hr/> \$406

No. 142.

LABORER.

American.

EARNINGS—Of father..... \$324

CONDITION—Family numbers 5—parents and three children, all boys, aged two, five and nine years respectively. Family occupy a house containing 3 rooms, situated in a very unhealthy locality, miserable surroundings, in the vicinity of a slough. Have a few chairs, bedstead, two poor stoves, but no carpets. Family poorly dressed; father works in saw mill; one cent per hour is retained by his employers on condition that he loses it if he leaves their service before the season closes. Father claims to have lost this 11 cts per day for the year 1881, as he had three of his fingers cut off, and could not work the season out.

FOOD—*Breakfast*—Bread, butter and coffee.*Dinner*—Bread, meat and coffee.*Supper*—Bread, butter, coffee and potatoes.

COST OF LIVING—

Rent	\$48
Fuel	22
Meat and groceries	220
Clothing, boots, shoes and dry goods	30
Sickness	35
Total	<hr/> \$355

No. 143.	LABORER.	American.
EARNINGS —Of father		
	Of son, aged sixteen.....	\$234
	Total	81
		\$315
CONDITION —Family numbers 8—parents and six children, two boys and four girls, aged respectively fifteen, sixteen, fourteen, six, four and two years. Two of the children attend school. Family live in a tenement house of 4 rooms, for which they pay \$8 per month rent. House is in healthy location, very poorly furnished, one room carpeted. Family poorly dressed and receive charity. Father and son both out of work at present; say they are in debt for their house rent and it is difficult to keep it paid. Father belongs to trade organization but carries no life insurance.		
FOOD — <i>Breakfast</i> —Bread, butter, potatoes and coffee.		
<i>Dinner</i> —None.		
<i>Supper</i> —Bread, meat, potatoes and tea.		
COST OF LIVING —		
	Rent	\$96
	Fuel	20
	Meat and groceries.....	210
	Clothing	40
	Boots and shoes and dry goods.....	32
	Books, papers, etc	5
	Trades unions.....	5
	Sickness	25
	Total	\$423

No. 144.	LABORER.	American.
EARNINGS —Of father		
	Of wife, at \$3 per week.....	\$187
	Total	150
		\$337
CONDITION —Family numbers 8—parents and six children, two boys and four girls, aged from one to fourteen years. Three of the children attend public schools. Family occupy a miserable old house containing three rooms, for which they pay a rental of \$4 per month. They have no furniture worth anything. The father works but little, children pick up fuel, etc. They have a good garden spot, but do not cultivate it. Family shiftless and improvident, and undoubtedly receive help from some source. Their expenditures exceed their earnings.		
FOOD — <i>Breakfast</i> —Bread, sometimes meat, tea or coffee.		
<i>Dinner</i> —Bread, meat, potatoes and bean-.		
<i>Supper</i> —Bread, molasses, cold meat or butter and tea.		
COST OF LIVING —		
	Rent.....	\$48
	Fuel	10
	Meat.....	75
	Groceries	175
	Clothing.....	25
	Boots and shoes.....	30
	Dry goods.....	15
	Sickness	10
	Total	\$388

No. 145.	LABORER.	American.
EARNINGS —Of father		
	Of son, fourteen years of age.....	\$50
	Total	25
		\$75
CONDITION —Family numbers 6—parents and four children, two boys and two girls, aged respectively six and fourteen, and girl twins of ten years. Father works only at odd jobs, from two to eight hours in summer. Is not able to do hard work and does not work during the cold months of the year. They live in a two room house, which is owned by friends of the family, and for which no rent is charged them. The house is in good locality. Two of the children attend school, and one of the boys earns a little money in different ways. Their expenses, amounting to about \$150, is mostly furnished by charity.		
FOOD — <i>Breakfast</i> —Corned beef and potatoes, occasionally coffee.		
<i>Dinner</i> —Bread, sometimes meat and fruit.		
<i>Supper</i> —Corn bread and salt, and oftener nothing.		
COST OF LIVING —		
	Fuel	\$20
	Meat and groceries.....	100
	Clothing, boots and shoes and dry goods	30
	Total	\$150

No. 146.	LABORER.	French.
EARNINGS —Of father		
Of son, nineteen years old.....		\$505
Of son, fourteen years old		200
Total		100
		\$805
CONDITION —Family numbers 10—parents and eight children, three boys and five girls, aged from four to nineteen. Four of them attend school, and two of the boys at work. Family live in their own house, which contains 5 rooms, with down stairs floors carpeted. The entire family present a comfortable appearance; own a sewing machine; children clean and bright looking; mother industrious and economical. They all go to church, and children attend Sunday school. They keep a cow and raise pigs, which they put up for winter meat. They have to struggle hard to keep within their income.		
FOOD — <i>Breakfast</i> —Bread and coffee, occasionally meat.		
<i>Dinner</i> —Potatoes, bread, meat and tea.		
<i>Supper</i> —Bread, tea and corn meal mush.		
COST OF LIVING —		
Fuel.....		\$25
Meat.....		120
Groceries		360
Clothing		100
Boots and shoes		50
Dry goods.....		75
Books, papers, etc.....		25
Sickness.....		30
Sundries		20
Total.....		\$805

No. 147.	LABORER (R. R.)	Irish.
EARNINGS —Of father		
Of son, sixteen years old		\$584
Total		365
		\$949
CONDITION —Family numbers 10—father, mother and eight children, four of whom attend school. The children are four girls and four boys, aged from three months to eighteen years. Father owns a house containing 3 rooms, which is in healthy locality; fairly furnished; carpets on two rooms; surroundings pleasant. Owns sewing machine. Family intelligent and attend church. Have scarcely any sickness. Father receives \$1.60 for his labor per day of ten hours the year round. With the help of the son, they are enabled to live comfortably and within their means.		
FOOD — <i>Breakfast</i> —Meat, coffee and bread.		
<i>Dinner</i> —Meat, vegetables, bread and coffee.		
<i>Supper</i> —Bread, coffee and fruits.		
COST OF LIVING —		
Fuel		\$20
Meat		183
Groceries		300
Clothing.....		100
Boots and shoes.....		40
Dry goods.....		100
Books, papers, etc.....		5
Sickness		10
Sundries.....		10
Total		\$828

No. 148.

MACHINIST.

American.

EARNINGS—Of husband

\$882

CONDITION—Family numbers 2—husband and wife. Own a house containing 6 rooms, which are comfortably furnished; have carpets on the floors; have sewing machine and organ. House is well kept, neat and tidy; is in good locality; pleasant surroundings; flowers in yard in summer. Family go to church; are intelligent beyond their class. They live well, dress well, and do not waste any money. They live for less than half of husband's earnings, and invest what they save in real estate. Husband receives an average of \$2.45 per day of nine hours in winter and ten in summer.

FOOD—Breakfast—Bread, coffee, meat and potatoes.

Dinner—Meats, vegetables, bread, coffee and pastries.

Supper—Bread, coffee, meats, fruits and vegetables.

COST OF LIVING—

Fuel.....	\$20	Dry goods.....	\$80
Meat.....	25	Books, papers, etc.....	30
Groceries.....	120	Sundries	30
Clothing.....	100	Total.....	————
Boots and shoes.....	25		

\$430

No. 149.	MACHINIST (R. R.)	American.
EARNINGS —Of father.....		
	Of son, aged twenty years.....	\$912
	Total.....	648
		\$1,560
CONDITION —Family numbers 6—parents and four children, three boys and one girl, aged from twelve to twenty years. Two of the children attend public school. Family occupy house containing 5 rooms, for which they pay rental of \$10 per month. House is in healthy locality, surroundings pleasant, and there is a flower garden. Home is generally well furnished, carpets on all floors. Have piano and sewing machine. Family intelligent and go to church. Father carries some life insurance. Have had considerable sickness in family during past year. Family save about \$500 a year.		
FOOD — <i>Breakfast</i> —Meat, bread, coffee and potatoes.		
<i>Dinner</i> —Meat, bread, vegetables and coffee.		
<i>Supper</i> —Meat, bread and tea.		
COST OF LIVING —		
	Rent.....	\$120
	Fuel.....	25
	Meat.....	255
	Groceries.....	360
	Clothing.....	150
	Dry goods.....	25
	Books, papers, etc.....	10
	Life insurance.....	17
	Sickness.....	50
	Sundries.....	40
	Total.....	\$1,052

No. 150.	MOULDER.	American.
EARNINGS —Of husband.....		
		\$624
CONDITION —Family numbers 3—husband, wife and wife's mother. They have no children. Occupy a house of 4 rooms, which they own. House situated in unhealthy locality, surroundings unattractive, and the house but fairly furnished. Have no musical instrument, but own sewing machine. Family of some intelligence. Father had work the entire year, and received an average of \$12 per week for his labor. He belongs to trades union, but carries no life insurance. Have had some sickness, but save a little money.		
FOOD — <i>Breakfast</i> —Meat, bread, butter and coffee.		
<i>Dinner</i> —Meat, vegetables, bread, butter and tea.		
<i>Supper</i> —Meat, vegetables, tea, cakes and bread.		
COST OF LIVING —		
	Fuel.....	\$22
	Meat.....	73
	Groceries.....	302
	Clothing.....	40
	Boots and shoes.....	25
	Dry goods.....	25
	Books, papers, etc.....	10
	Trades unions.....	20
	Sickness.....	30
	Sundries.....	25
	Total.....	\$572

No. 151.	MOULDER.	German.
EARNINGS —Of father.....		
		\$1,092
CONDITION —Family numbers 3—parents and one young child. They live in a 4 room tenement, which is nicely and comfortably furnished, and for which they pay \$8 per month rent. Family live well and comfortably, but not extravagantly, and are moderately intelligent. Father worked 52 weeks of the year, and 10 hours for a day's work, for which he received \$21 per week. He belongs to trades union, but carries no life insurance. Had but little sickness in his family, and they are pretty well satisfied with their lot in life.		
FOOD — <i>Breakfast</i> —Coffee, bread, butter and steak.		
<i>Dinner</i> —Soup, meat, vegetables, bread and coffee.		
<i>Supper</i> —Tea, cold meat and potatoes		
COST OF LIVING —		
	Rent.....	\$96
	Fuel.....	20
	Meat.....	90
	Groceries.....	140
	Clothing.....	95
	Boots and shoes.....	20
	Dry goods.....	15
	Books, papers, etc.....	16
	Trades unions.....	12
	Sickness.....	15
	Sundries.....	60
	Total.....	\$579

No. 152.	NAILER.	English.
EARNINGS —Of father.....		\$1,080
Of son, eighteen years of age.....		318
Total.....		\$1,398
CONDITION —Family numbers 6—parents and four children, three boys and one girl, aged from ten to eighteen years. Two of the children attend public school, and one of them is at work. Family live in ordinarily well furnished house, containing 6 rooms, for which they pay rental at the rate of \$16 per month. House is in healthy locality, furniture is substantial, and neat carpets are on the floors. Have sewing machine and musical instrument. Family fairly intelligent, and attend church. They live comfortably, but economically. Father receives \$5 per day for his labor, and the son \$1.50, and they save some money.		
FOOD — <i>Breakfast</i> —Bread, coffee, meat and potatoes. <i>Dinner</i> —Salt and fresh meats, vegetables and pastries. — <i>Supper</i> —Meats, coffee, cakes, bread and potatoes.		
COST OF LIVING —		
Rent.....		\$192
Fuel.....		52
Meat.....		104
Groceries.....		200
Clothing.....		200
Boots, shoes and dry goods..		100
Books, papers, etc.....		10
Trades unions.....		24
Sickness.....		25
Sundries.....		50
Total.....		\$957

No. 153.	NAILER.	English.
EARNINGS —Of father.....		\$1,296
CONDITION —Family numbers 8—parents, mother-in-law and five children, three girls and two boys, aged from four to thirteen years. Three of the children attend school. Family occupy a good, well furnished house, containing 6 rooms, which they rent and pay \$12.50 per month. They have good carpets on the floors, and have a piano and sewing machine. Family live pretty well, but things in general do not have a prepossessing appearance. They are ordinarily intelligent. They save some money, which is laid aside for a rainy day. Father carries some life insurance, and belongs to trades union. He receives about \$40 a week.		
FOOD — <i>Breakfast</i> —Bread, butter, coffee, potatoes and meat. <i>Dinner</i> —Meat, vegetables, bread, butter and coffee. <i>Supper</i> —Meats, bread, butter, coffee and cake.		
COST OF LIVING —		
Rent.....		\$150
Fuel.....		25
Meat.....		120
Groceries.....		300
Clothing.....		50
Boots and shoes.....		30
Dry goods.....		100
Books, papers, etc.....		20
Life insurance.....		16
Trades unions.....		7
Sickness.....		25
Sundries.....		50
Total.....		\$893

No. 154.	NAILER.	American.
EARNINGS —Of husband.....		\$1,800
CONDITION —Family numbers 2—husband and wife. They own a well furnished house containing 5 rooms, which are nicely carpeted. Have a sewing machine and piano. They are a very intelligent elderly couple, and attend church regularly. Save about \$1,400 per annum, and invest it mostly in real estate. Husband belongs to trades union, but carries no life insurance. Had no sickness in the family during the year. He works about forty weeks per year, and receives an average of \$45 per week for his labor. They live well, and seem to be perfectly satisfied with their lot in life.		
FOOD — <i>Breakfast</i> —Bread, meat, coffee and fruit. <i>Dinner</i> —Meat, bread, vegetables and pastries. <i>Supper</i> —Meat, tea, coffee, vegetables and fruits.		
COST OF LIVING —		
Fuel.....		\$25
Meat.....		60
Groceries.....		180
Clothing.....		15
Boots and shoes.....		8
Dry goods.....		50
Books, papers, etc.....		15
Trades unions.....		9
Sundries.....		25
Total.....		\$387

No. 155.	NAILER.	American.
EARNINGS—Of father		\$1, 188
CONDITION— Family numbers 6—parents and four children, an infant boy of two weeks, and a boy thirteen years old; and two girls aged nine and eleven years. Three of the children attend public school. Family live in a comfortable house, which contains 4 rooms, ordinarily furnished, for which they pay rental at the rate of \$12 per month. They have carpets on the floor. Own a sewing machine and an organ. Family intelligent, and go to church regularly. Everything in and about the premises looks neat, and in summer they have a nice flower garden. Father receives \$5.50 per day for his labor, belongs to trade union, and carries some life insurance.		
FOOD—Breakfast— Bread, meat, coffee and potatoes. Dinner— Meat, vegetables, pastries and coffee. Supper— Meat, coffee, bread, butter and cakes.		
COST OF LIVING—		
Rent	\$144	
Fuel	25	
Meat	120	
Groceries	180	
Clothing	100	
Boots and shoes	50	
Dry goods	50	
Books, papers, etc	15	
Life insurance	16	
Trades unions	6	
Sickness	25	
Sundries	25	
Total		\$756

No. 156.	PLASTERER.	Irish.
EARNINGS—Of husband.....		\$731
CONDITION— Family numbers 2—husband and wife. They live in their own house, which contain 8 rooms. The husband receives an average of \$3 25 per day for his work, which is above the general average of wages received by plasterers. He sometimes employs from three to four men during the busy season. He estimates his time worked during the year at 225 days, which is also above the average of men at his trade, which varies in this climate from 155 days in a dull and late season, to 260 in an early and lively season. The work is difficult, and requires unusual skill. He says the majority of the better plasterers are foreigners. Few men of this trade continue at the business after the age of fifty years, especially in the west, on contract work, as the foreman is usually an expert, and requires his men to work rapidly and well. They are generally paid according to their ability to keep up in their work with an unusually good young workman, and those nearing the age of fifty years are compelled to drop out and give room for the younger class of workmen. Apprentices are few, probably for two reasons, viz., the laws of this State do not protect the master, and the majority of young and intelligent men prefer office work to mechanical employment. Those applying for apprenticeships are, as a rule, foreigners, or sons of foreigners. He considers that a good apprentice law, that would protect both the apprentice and the master, would be of great benefit to all concerned. Few, if any of the men who have learned trades in the past few years, are as good workmen as those they learned from, and he thinks the tendency in all trades is to a subdivision of labor, which in the building trade develops an inferior lot of workmen. He also thinks men could and would be better protected in their trades if there was a State or county system licensing good men who should be obliged to prove that they were masters of their trades. He believes that sooner or later some practice of this kind will have to be adopted. He belongs to no trades union, but is a member of a friendly society, and he carries no life insurance. Both husband and wife belong to the church.		
FOOD—Breakfast— Summer: Buckwheat cakes, potatoes, coffee and meat. Winter: Bread, butter, coffee, vegetables, ham and eggs or fish. Dinner— Summer: Roast or boiled meat, soup, coffee and vegetables. Winter: Beefsteak or mutton, vegetables, tea or coffee. Supper— Bread, butter, eggs, fruit in season, cake or pastry.		
COST OF LIVING—		
Fuel	\$30	
Meat and fish	90	
Groceries	248	
Clothing	60	
Boots and shoes	18	
Dry goods	40	
Books, papers, etc	28	
Church	20	
Society	12	
Sickness	35	
Sundries	50	
Total		\$631

No. 157.

ROLLER IN NAIL MILL.

German.

EARNINGS—Of father..... \$864

CONDITION—Family numbers 5—parents and three children, two boys and one girl aged from two to seven years. One of the children attends school. Family live in house containing 3 rooms, which is situated in healthy locality. They pay \$7 per month rent for the house. Have carpets on the floors, furniture only ordinary; own sewing machine; family intelligent. What money they save is put away for future use. Most nail mill men are liable to become dissatisfied, and move from one place to another, and consequently save no money in the long run. Father belongs to trades union, but carries no life insurance. Receives \$4 per day for his work.

FOOD—*Breakfast*—Beef, vegetables, coffee, bread and butter.

Dinner—Boiled, roast or fried meats and vegetables.

Supper—Cold meats, coffee, tea, bread and cakes.

COST OF LIVING—

Rent.....	\$84
Fuel.....	25
Meat.....	75
Groceries.....	125
Clothing.....	50
Boots and shoes.....	25
Dry goods.....	25
Books, papers, etc.....	10
Trades unions.....	6
Sickness.....	50
Sundries.....	50
Total.....	\$525

No. 158.

ROLLER BAR MILL.

American.

EARNINGS—Of father..... \$2,200

CONDITION—Family numbers 6—parents and four children, all boys, aged four, six, fifteen and seventeen years. Two of them go to school. Family live in an excellent house, containing 6 rooms, which they own, and is well furnished; carpets on all the floors. Have a piano, and sewing machine. House in healthy locality, and pleasant surroundings. Flowers in yard in summer. Family intelligent, and go to church. Father receives \$10 per day of eleven hours, and works only about 37 weeks in the year, and saves \$1,400. Family live well, but economically. Father carries no life insurance and belongs to no trades union.

FOOD—*Breakfast*—Bread, meat, coffee, fruit, etc.

Dinner—Bread, meat, coffee, vegetables, etc.

Supper—Meat, eggs, bread and butter.

COST OF LIVING—

Fuel.....	\$75
Meat.....	150
Groceries.....	300
Clothing.....	75
Boots and shoes.....	40
Dry goods.....	50
Books, papers, etc.....	10
Sickness.....	25
Sundries.....	75
Total.....	\$800

No. 159.

ROLLER BAR MILL.

American.

EARNINGS—Of father..... \$2,200

CONDITION—Family numbers 5—parents and three children, two boys and one girl, aged four, six and eight years. Do not attend school. Family occupy house containing 3 rooms, well furnished and in healthy locality, but the surroundings are not of the best. Family ordinarily intelligent. Father works eleven hours per day for 37 weeks in the year, and receives \$10 per day for his labor; he saves about \$1,400 per year, which he deposits in the bank. Family live well, but not extravagantly.

FOOD—*Breakfast*—Bread, meat, eggs, and coffee.

Dinner—Bread, meat, vegetables, fruits and coffee.

Supper—Bread, fruits, coffee and meat.

COST OF LIVING—

Rent.....	\$120
Fuel.....	40
Meat.....	125
Groceries.....	200
Clothing.....	55
Boots and shoes.....	35
Dry goods.....	60
Books, papers, etc.....	8
Sickness.....	50
Sundries.....	75
Total.....	\$768

No. 160.	STONE MASON.	German.
EARNINGS—Of father.....		\$396
CONDITION—Family numbers 6—parents and four children, one boy and three girls, aged from twenty months to ten years. Three of the children attend public schools. Family live in their own house, but it is mortgaged for a little over half its value; good house, containing 6 rooms, in good locality, but very poorly furnished, with but one room carpeted. Own sewing machine. They rent three rooms on second floor. House is kept very clean, and have a nice kitchen garden attached. They are heavily in debt, and afraid of losing their home. Father has had very little work during the past year. He carries life insurance and belongs to trades union.		
FOOD— <i>Breakfast</i> —Bread, butter, potatoes and coffee. <i>Dinner</i> —Bread, butter, meat, vegetables and coffee. <i>Supper</i> —Bread, butter, potatoes and coffee.		
COST OF LIVING—		
Interest and taxes	\$85	
Fuel	25	
Meat	52	
Groceries	230	
Clothing	50	
Boots and shoes	30	
Dry goods	35	
Books, papers, etc.....	8	
Life insurance	20	
Trades unions	3	
Sundries	15	
Total		\$553

No. 161.

STONE CUTTER.

English.

EARNINGS—Of father..... \$624 00

CONDITION—Family numbers 8—parents and six children, three girls and three boys, aged two, four, six, eight, thirteen and fifteen years. Four of the children attend school regularly. Family occupy a house containing 5 rooms, in pleasant location. Not much furniture; rooms carpeted except kitchen. Own a sewing machine, and have flower and vegetable garden. Family dress plainly, attend church, and have very little sickness. Do not save any money. Father is out of work at present. When he enquires for ordinary work, he is told you have a trade and make good wages in summer. Has a deed of his property, but it is mortgaged for half its value. Father carries life insurance and belongs to trades union.

FOOD—*Breakfast*—Bread, butter, meat, potatoes and coffee.
Dinner—Bread, butter, meat, potatoes and coffee.
Supper—Bread, butter, cake and tea.

COST OF LIVING—

Interest, taxes, etc.....	\$71 00	Dry goods	\$40 00
Fuel	25 00	Books, papers, etc.....	15 00
Meat	52 00	Life insurance.....	21 00
Groceries	260 00	Trades unions	3 50
Clothing.....	70 00	Sundries	20 00
Boots and shoes	48 00	Total.....	————

\$625 50

No. 162.	STONE CUTTER.	American.
EARNINGS—Of father.....		\$609
CONDITION—Family numbers 6—parents and four children, three boys and one girl, aged four, six, seven and nine years. Two of the children attend school. Family occupy a tenement house of 4 rooms, for which they pay a rental of \$9 per month. House is in poor location, with poor surroundings, inconvenient and unhealthy. House is furnished very poorly, and no carpets on the floors. Had considerable sickness and one death in the family, which has kept them in very poor circumstances. Father receives \$3.50 per day for his labor. He carries no life insurance and belongs to no trades organization.		
FOOD— <i>Breakfast</i> —Bread, butter, meat and coffee. <i>Dinner</i> —Bread, butter, meat, potatoes and coffee. <i>Supper</i> —Bread, butter, cake and tea.		
COST OF LIVING—		
Rent	\$108	
Fuel	26	
Meat and groceries	236	
Clothing	55	
Boots and shoes	35	
Dry goods	32	
Books, papers, etc.....	2	
Sickness	75	
Sundries	30	
Total		\$599

No. 163.

STONE CUTTER.

American

EARNINGS—Of husband..... \$637

CONDITION—Family numbers 2—husband and wife. They occupy a tenement house of 4 rooms, in a good, healthy location and well furnished, rooms all being well carpeted; surroundings pleasant, and have a flower garden. They pay \$7 per month rent for the house. Family dress well and attend church. Own a sewing machine. Husband carries considerable life insurance, and belongs to trades union. They had some sickness in the family during the past year. Husband works on an average, in summer, nine and a half hours per day, and receives \$3.50 per day. He also worked three weeks at iron-moulding, at \$2.75 per day.

FOOD—*Breakfast*—Bread, butter, meat, pancakes and coffee.

Dinner—Bread, butter, meat, potatoes, pie and coffee.

Supper—Bread, butter, cake, sauce and tea.

COST OF LIVING—

Rent	\$84	
Fuel	20	
Meat and groceries.....	276	
Clothing.....	60	
Boots and shoes and dry goods.....	10	
Books, papers, etc	12	
Life insurance	33	
Trades unions.....	4	
Sickness.....	20	
Sundries	15	
Total.....		\$534

No. 164.

SUPERINTENDENT FLOUR MILLS.

American.

EARNINGS—Of father..... \$1,500

CONDITION—Family numbers 6—parents and four children, three boys and one female infant, aged from eight months to eight years. One of the children attends public school. Family live in a good house which they own, and which contains 8 good rooms, finely furnished, nice carpets, piano and sewing machine. House situated in healthy locality. Family quite intelligent, and attend church regularly. Father receives \$125 per month for his services. He carries some life insurance, and on the whole, they are well situated and in good circumstances.

FOOD—*Breakfast*—Bread, steak, potatoes and fruits.

Dinner—Bread, meat, vegetables, pastry, etc.

Supper—Bread, butter, meat, coffee or tea.

COST OF LIVING—

Fuel.....	\$60	
Meat	180	
Groceries	200	
Clothing.....	75	
Boots and shoes.....	50	
Dry goods.....	100	
Books, papers, etc.....	20	
Life insurance.....	40	
Sickness.....	250	
Sundries	100	
Total.....		\$1,075

No. 165.

SUPERINTENDENT GLASS WORKS.

American.

EARNINGS—Of father..... \$1,010

Of son, seventeen years old..... 612

Of son, fifteen years old..... 180

Total \$1,802

CONDITION—Family numbers 8—parents and six children, three boys, aged eight, sixteen and eighteen years, and three girls, aged one, five and eleven years. Two of the children attend school. Family occupy a comfortable house, containing 7 rooms, for which they pay a rental of \$25 per month. Floors are all carpeted. Have piano and sewing machine. Family intelligent, and attend church regularly. They manage to save but little of their earnings. Father receives \$125 per month, but only worked thirty-six weeks of the past year. He carries no life insurance.

FOOD—*Breakfast*—Bread, meat, coffee and potatoes.

Dinner—Meats, vegetables, coffee and fruits.

Supper—Meat, potatoes, tea and fruits.

COST OF LIVING—

Rent	\$300	Dry goods.....	\$100
Fuel.....	40	Books, papers, etc	20
Meat.....	200	Sickness.....	100
Groceries	300	Sundries	150
Clothing	125	Total	
Boots and shoes.....	75		\$1,410

No. 166.

SUPERINTENDENT GAS WORKS.

American.

EARNINGS—Of father.....	\$1,500	
Of son, aged twenty years.....	1,020	
Total.....		\$2,520

CONDITION—Family numbers 6—parents and four children, two boys and two girls, aged eleven, fourteen, seventeen and twenty years. Two of them attend school. Family occupy a rented house of 8 rooms, for which they pay \$37.50 per month. The house is an excellent one, in healthy locality, surroundings very pleasant, and splendidly furnished, with fine carpets on the floors. Have piano and sewing machine. Family more than ordinarily intelligent, attend church and live in first-class style, and are prosperous in every respect. Father carries no life insurance and belongs to no trades union.

FOOD—*Breakfast*—Bread, steak, coffee and potatoes.
Dinner—Bread, coffee, fruits, meats, vegetables and pastries.
Supper—Bread, meat, coffee, fruits, jellies and pastries.

COST OF LIVING—		
Rent.....	\$450	
Fuel.....	66	
Meat.....	109	
Groceries.....	600	
Clothing.....	250	
Boots and shoes.....	75	
Dry goods.....	250	
Books, papers, etc.....	30	
Sickness.....	25	
Sundries.....	100	
Total.....		\$1,949

No. 167.

TEAMSTER.

Irish.

EARNINGS—Of father.....	\$825	
Of four children.....	372	
Total.....		\$1,197

CONDITION—Family numbers 11—parents and nine children, five girls and four boys, aged from four to twenty years. Four of the children attend school regularly, and four of them work at odd jobs and help to support the family. They live in a comfortable house containing 5 rooms, which they own and have recently had repaired. House in good location, one room carpeted; have a sewing machine. Family dress plainly, are clean and intelligent. They all attend church. The mother is afflicted with a cancer, and the physician's services cause a great expense, and were it not for the help of the children they would fall behind in their expenses.

FOOD—*Breakfast*—Bread, butter and coffee.
Dinner—Bread, meat, potatoes and tea.
Supper—Bread, butter and coffee.

COST OF LIVING—		
Repairs and taxes.....	\$50	
Fuel.....	40	
Meat.....	150	
Groceries.....	420	
Clothing.....	120	
Boots and shoes.....	65	
Dry goods.....	100	
Books, papers, etc.....	15	
Trades unions.....	3	
Sickness.....	250	
Total.....		\$1,213

PART III.

STATISTICS OF

COAL PRODUCTION IN ILLINOIS, 1884,

WITH REPORTS OF INSPECTORS ON

The Condition of Mines and Miners.

THE MANUFACTURE OF DRAIN TILE IN ILLINOIS.

THE PULLMAN ENQUIRY, ETC.

THE COAL MINES AND MINERS OF ILLINOIS.

The present report on the coal resources of the State, embracing both the statistics of production, and the details as to the condition of the various mines, constitutes the third annual presentation made by this Bureau of detailed information in regard to this important industry, and is deserving of special attention because it is founded upon the reports of a new corps of inspectors, who have made not only a more thorough canvass and inspection than has ever been made before, but have done so with the intelligence of mining experts, and the discretion of experience.

Since the publication of the last biennial report of the Bureau, in which special prominence was given to the mining interests of the State and the needs of the same, there have been several important changes made in the laws regarding the development and management of coal mines, with a view both to the better protection of the lives and health of those who work in them, and the promotion of more economic methods of mining.

We may briefly summarize the more recent legislation on the subject, and subsequently review some of the practical results of the changes made, so far as they have become operative during the past year.

RECENT LEGISLATION.

The last General Assembly of this State, in session during the winter of 1882-83, had its attention frequently directed, during its term, to certain desired amendments and additions to the mining laws of the State, and through the agency of some of the more active members of the Senate and House committees on Mines and Mining, supported by the influence of representative men from the mining regions, several measures were brought forward which so

commended themselves to the members of that Legislature as to receive a vote sufficient to make them the laws of the State. The character of these measures may be briefly stated as follows:

1. An amendment providing for State Inspectors of Mines, and defining the method of appointment, duties, and districts of the same. (Approved June 18, 1883.)

2. An act to provide for the weighing of coal at the mines. (Approved June 14, 1883.)

3. An amendment requiring fire-proof buildings to be constructed at the pit-head, under certain conditions. (Approved June 21, 1883.)

4. An amendment requiring all miners to use copper needles and copper-tipped tamping bars in preparing blasts. (Approved June 21, 1883.)

5. An amendment changing the time allowed for the construction of escapement shafts, and removing the clause which had exempted mines which employed only ten men. (Approved June 18, 1883.)

6. An amendment prohibiting the use of any furnace for ventilation which should discharge its smoke into the hoisting shaft, as an up-cast, when such shaft was the only means of egress to the men. (Approved June 21, 1883.)

7. An amendment to prevent the employment underground of boys less than 14 years of age. (Approved June 18, 1883.)

In addition to these there were other measures urged upon the committees and presented to the Legislature which failed to pass. Among these, a bill to require the use of a screen of uniform dimensions and width between bars, at all mines, was perhaps the most important. The necessity of this regulation was claimed on the ground that in some parts of the State the proportion of coal which went through the screens, and for which miners received no pay, was much larger than was necessary to thoroughly clean the coal for market. Against this it was urged that the character of the coal, and the condition in which it came to the surface, was so varied in different parts of the State that to compel the use of a uniform screen would work injustice to many operators and men. This view of the case prevailed.

The greater number, however, of the plans proposed for the better protection of coal miners, were promptly conceded by this Legislature, whenever the wisdom or justice of any measure was made apparent.

The most conspicuous feature of the new mining law, and the one which involved the most careful consideration as well as the most discussion in and out of the Legislature, was that which created the office of State Inspector of Mines.

The subject of mine inspection had received special notice from this Bureau in a former report, in which the unsatisfactory results and unequal operation of the inspection by counties was so shown as to convince those who gave the matter consideration that a change of some kind was not only desirable but necessary to the securing of uniform and effective service. The matter was also brought before the committees on mines and mining, by delegations of miners from different parts of the State, and the movement was commended by many operators, who desired to see the law equally and impartially enforced.

Several conferences were held by those interested, with the members of the joint committee, and the result was the framing of a committee bill, embracing the details of such a mine inspection service as was conceived to be best, and which was modeled largely upon the laws and experience in Pennsylvania. This bill was submitted to both houses of the Legislature. In the course of its passage, however, the original bill was modified and changed in several particulars, to the regret of many; but as it finally passed, the bill was in the main satisfactory to those who projected it. The leading features of the law, as it now stands upon the statute books, may be briefly summarized as follows:

In order to divide the territory and the work judiciously, there are five divisions made of the coal producing regions of the State, and an inspector, appointed and paid by the State, is assigned to each.

Candidates for such appointment must give evidence of special qualifications for the duties of the office, and to judge of these a board of examiners is provided for, before whom all applicants must appear and undergo examination.

This board must consist of five members, to-wit: two coal operators, two coal miners and one mining engineer, the selection of whom devolves upon the Bureau of Labor Statistics.

Upon the recommendation of this examining board, the Governor is authorized to appoint.

Inspectors thus qualified and appointed are to serve one year, at a salary of \$1,800 per annum, paying their own expenses, and they are required to report to this Bureau.

County boards are still authorized, however, to appoint inspectors for counties, and such local inspectors become assistants of the State inspectors.

APPOINTMENT OF STATE INSPECTORS.

Under the provisions of this law, there have been two Boards of Examiners appointed, for the years respectively of 1883 and 1884, who have received and conducted the examination of all candidates who have chosen to appear before them. The first of these boards was composed as follows:

W. H. Emerson, coal operator, Astoria.

John Maule, coal operator, Belleville.

John Dixon, coal miner, Streator.

George Neilson, coal miner, Springfield.

W. S. Cherry, mining engineer, Streator.

This board held two sessions, one in September and one in October of 1883, and examined, in all, 38 candidates. Of this number, there were seven who gave evidence of satisfactory qualifications, and they were accordingly awarded Certificates of Competency, and recommended to the Governor as worthy of appointment as State Inspectors of Mines. From this number his Excellency made selection of five, to whom he issued commissions, as follows: To—

Alexander Ronald, Streator, to be Inspector of the First District.

Thomas Hudson, Streator, to be Inspector of the Second District.

James P. Cumming, Braceville, to be Inspector of the Third District.

Walton Rutledge, Alton, to be Inspector of the Fourth District.

Robert Winning, Carterville, to be Inspector of the Fifth District.

These officers immediately assumed their duties, and served their respective terms of one year, in the fields assigned to them.

The second Board of Examiners was appointed in August, and assembled in the first week of September of 1884, as required by law, and was composed of the following members:

Alfred W. Perry, coal operator, Geneseo.

Henry Wood, coal operator, Girard.

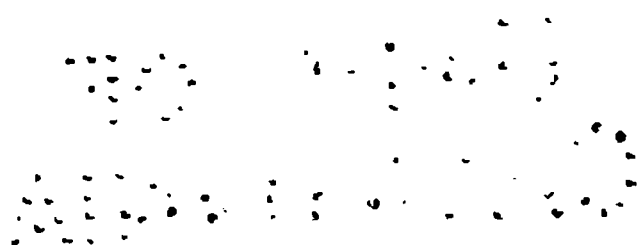
Alex. McDonald, coal miner, Alton.

John Keay, coal miner, LaSalle.

W. S. Cherry, mining engineer, Streator.

There were ten candidates before this board for examination, four of whom were inspectors whose terms were about to expire. Of





these ten, five received the certificates and recommendation of the board, and were subsequently commissioned by the Governor for the ensuing year. They were—

Alexander Ronald, for the First District.

Thomas Hudson, for the Second District.

John Rollo, for the Third District.

Walton Rutledge, for the Fourth District.

Robert Winning, for the Fifth District.

These inspectors are now on duty in their respective districts.

Mr. Cumming, the first inspector of the Third District, retired from the service at the expiration of his term, in order to assume the underground management of the deep mine at Mattoon.

REPORTS OF INSPECTORS.

The results of the labors of these inspectors will be found fully set forth in their several reports to this Bureau. These cover all the facts and conditions developed by their first canvass of their respective districts, and record the measure of success which has attended their efforts.

From the nature of the case the duties of an efficient inspector are complicated and arduous. He is charged with the execution of a law which very nearly affects the business interests of owners, as well as the lives and health of miners, and he may frequently be called upon to impose what may be deemed hardships upon the one for the benefit of the others. The proprietors may even regard the inspector's requirements as too exacting and oppressive, while the miner charges him with neglect of duty in not exacting more. Upon a strict interpretation of the law it may be in his power to close up a mine to the injury alike of owners, miners and the community, or by the exercise of a wise judgment he may reconcile difficulties and effect a gradual reform without injury to anybody. To carry out the spirit of the law in the most effective manner, and accomplish such reforms in mine management, and such improvement in their condition as the law contemplates, and to do this with the least possible interruption to business, with the fewest appeals to the courts, and at the same time with the least delay, is the delicate and difficult task which presents itself to the inspector on every hand. With what degree of discretion and firmness the inspectors of this State have met and discharged the duties imposed upon them must be judged from the results which are presented.

The two essentials of safety in mining, and the foremost objects sought by mine legislation, are good ventilation, and facilities for exit in case of danger. To secure these, primarily, the laws were framed, and to insure their observance inspectors were appointed. By reference to the following reports it will be seen what each inspector has attempted and accomplished in these respects during the past year.

In the First District we find that 16 escapement shafts have been sunk and equipped with apparatus for the speedy exit of men in case of an emergency; that two more are in process of construction, and that in numerous instances passage ways have been opened up under ground to connect with escapement exits, and render them available.

Two mines in this district have been suspended for refusal to provide second places of egress, and at present there remains only one important escapement to be constructed in the district.

There have been 9 improved ventilating fans erected for the better ventilation of mines during the year, and in many places the air in mines has been greatly improved by the cleaning up of air ways and the enlargement and shortening of air courses. There are safety catches on the cages at almost every shaft, and they are being put on whenever required.

In the Second District many minor improvements have been made, such as the putting on of safety catches, and covers on cages, and guards at the mouths of shafts, and brakes on winding drums; but in addition to these there have been 33 escapements completed during the year, and there are 10 more in progress.

In the Third District there have been 9 ventilating fans constructed at important mines, making 12 in all where there were only 3 before, and in addition to the fans, there have been 3 improved furnaces erected for the better ventilation of mines. There have also been 55 escapement shafts ordered by the inspector, 30 of which were completed on the 1st of July, and many more have been since then. Four injunctions have been applied for against the operation of mines whose owners refused compliance with the law, but three of them subsequently made the necessary improvements, and the applications were withdrawn.

In the Fourth District, where the greater number of deep and extensive mines are found, the inspector has secured the sinking of 20 escapement shafts at mines where there had previously been only one place of egress for the men. Owing to the depth of mines in this

district the sinking of an additional shaft has usually involved the expenditure of a large sum of money, and the whole cost of this number of shafts would doubtless approximate \$100,000.

There have also been put in operation 9 powerful fans to supercede less effective systems of ventilation. Some legal proceedings have been made necessary, but in general the desired results have been secured without contest.

For the Fifth District we have a record of 23 escapement shafts completed or in progress; of 9 air shafts which have been remodeled for purposes of escape; and underground communication has been established so as to afford passage-ways for escape to 6 additional mines, all of which is equivalent to securing second places of egress for 38 mines.

In this district there have also been erected 14 improved fans to secure better ventilation, 10 of which were in St. Clair county.

Twenty-eight indictments have been found against operators in this county for non-compliance with the law requiring coal to be weighed at the mines, but the complaints were, for the most part, filed by the miners themselves.

Summarizing these results we obtain the gratifying total of 147 mines at which second places of egress have been secured during the year, and 22 at which they are in process of construction, making altogether 169 additional outlets for those exposed to the perils of mining. We also have a total of 41 new fans, all in the nature of improvements over former ventilating apparatus, to supply the mines with better air.

No commentary can add to the force of these figures, and no stronger vindication can be had of intelligent mine inspection.

Yet these are only the more patent results of the labors of the mine inspectors, and mere figures can hardly be made to show the degree of their usefulness in numberless minor matters, involving safety to life and limb, economy of management, and salutary conditions of all kinds in and about the mines they have visited.

STATISTICS OF PRODUCTION.

Following this will be found the full reports of the several State Inspectors, made to this Bureau, and embracing not only their notes and commentaries on the condition of mines, but also complete statistical tables, upon uniform blanks, covering all the material facts in regard to the industry in this State.

From these we deduce the following summaries as to the volume of business done for the year ending July 1, 1884:

Number of counties producing coal.....	49
Number of mines and openings of all kinds.....	741
Number of employes of all kinds.....	25,575
Number of tons of coal mined—1884.....	10,101,005
Aggregate value of the same at the mines.....	\$13,164,976
Average value per ton, for the State at large.....	\$1.30
Average number of days of active operations in the year.....	200
Average price per ton paid for mining.....	\$0.82
Number of kegs of powder used	144,378
Number of men killed.....	46
Number of men injured, so as to lose time.....	197
Number of tons mined for each life lost.....	219,587
Number of employes of all kinds for each life lost.....	556

Several features of this summary are worthy of note and of comparison with results obtained in previous years.

The number of counties whose coal product enters into this aggregate is two more than that of last year. These counties are Calhoun and Cass. Calhoun county appears in our list now for the first time, not because of any new opening in that county, but because the mine here reported had heretofore escaped notice, owing to its obscure situation, removed from any railway and on the banks of the Mississippi river, which affords the only communication for its product with the market. This is an extensive plant established in 1882 for the manufacture of coke, but at present is not in active operation.

Cass county appeared in our former list, but was mentioned merely as a prospective producer, two new mines being then about to begin operations. They have since been completed but their output as yet is merely nominal.

The number of mines and openings of all kinds, including numerous small enterprises for local trade, and several "strippings," is given as 741 as against 639 last year, but this apparent increase is largely owing to the fact that we have embraced and enumerated here every place where coal in any appreciable quantity has been brought to the surface. An analysis of the character of the mines given, as indicated by their output, will show what real difference there is between this year and last.

Year.....	No. of mines producing less than 1,000 tons for the year.	No. of mines producing from 1,000 to 10,000 tons for the year.	No. of mines producing from 10,000 to 50,000 tons for the year.	No. of mines producing over 50,000 tons for the year.	Whole number of openings.
1883.	209	233	135	62	639
1884.	262	273	146	60	741

From this it appears that the increase is largely in mines whose annual product is less than 1,000 tons, and almost wholly in the class producing less than 10,000 tons. The increase in mines of the larger class is only nine.

An increase is also noticeable in the number of employes of all kinds, which is possibly owing to a more exact enumeration. The number given, 25,575, is 1,636 more than that reported last year, and is made up of the whole number of miners, proper, employed in the busy season, added to the total of other employes, and consequently is not the average number employed, but the maximum number. The average can readily be obtained however from the subsequent tables, as the minimum is there given also. Our purpose is to show the whole number of people engaged in this business.

The aggregate tonnage for the State for this year shows an apparent falling off of 407,786 tons, but this is neutralized by an excess of about the same amount erroneously reported last year from Rock Island county. The real difference in the summaries for the two years is 70,014 tons in favor of 1884, and this, in view of the larger number of small mines included in this year's summary, is equivalent to no material change in the total product of the State. In the several districts, however, there are relative gains and losses as follows:

Year.....	FIRST DISTRICT	SECOND DIST.	THIRD DIST.	FOURTH DIST.	FIFTH DISTRICT.
	Tons.	Tons.	Tons.	Tons.	Tons.
1883.	2,495,072	831,522	1,585,108	3,128,368	1,990,921
1884.	2,507,370	728,341	1,932,881	2,804,183	2,128,230

The most striking feature in the exhibit made in the summary is the marked decline in values, as reported and averaged in the returns for this year. These figures in regard to the value of coal at the mines, do not purport to be exact as to anybody's actual

sales, but are merely the average prices prevailing at various places, for coal on track or wagons, and are doubtless in most instances neither the highest nor lowest prices realized. Yet they afford a very close indication of the real values, and as we have taken the data on this subject in the same manner in previous years, they are valuable for comparisons.

The average value per ton at the mines for the State at large, as computed from the estimates made in each locality, is, for this year, \$1.30. Last year the average obtained in the same manner was \$1.46, and that for the year preceding was also \$1.46, with a difference of some remote decimals, while the estimate made by the United States census officials for this State in 1880 was \$1.44 per ton.

The average for this year consequently shows a falling off of 16 cents a ton, or 11 per cent., from the average price realized throughout the State for the two years immediately preceding. This is confirmatory of the general complaint of low prices, and unusual competition in home and district markets.

A similar decline is observed in the average for the price of mining. Last year an average made up from the different prices paid in all parts of the State was 90 cents a ton. This year a similar computation gives an average for the State at large of 82 cents. This, of course, is alike removed from either extreme, the lowest price paid being nominally $37\frac{1}{2}$ cents a ton, and the highest \$1.50, though by far the greater number of tons are mined at the lower rates.

We have also endeavored, in the present canvass, to ascertain what portion of the year the different mines have been in active operation, and our reports consequently show the number of days so reported. Though these figures may not be exact for every place, they indicate very fairly the relative working time for the several establishments, and give us an average for all of 200 days of active operations in the year. The average, however, will be of less interest than the facts as they appear in the tables for the different mines, or mining districts.

Another new feature in the statistics of this year is the showing in regard to the amount of explosives used. This varies very largely in the different coal fields, owing to the nature of the seam, or the method of working it. Some coal can be worked without the use of powder, but other formations require a great deal of it. To dissipate the powder smoke which accumulates in the galleries of the

latter class of mines requires increased capacity of ventilating apparatus, and this information in regard to the amount of powder used is important as indicating what volume of air should be kept in motion to secure proper ventilation. Our totals show that 144,378 kegs, or 3,609,450 pounds of powder were used in the mines of this State for blasting purposes during the year under consideration.

Without further comment we present herewith a statistical summary for the State, compiled from the reports of the several inspectors, and embracing the foregoing and other important details of coal production in Illinois:

STATISTICS OF LABOR.

Statistical Summary, showing the Number, Character, Products, etc., of the Coal Mines of Illinois, for the year 1884, as Reported by Districts.

District's	KINDS OF POWER EMPLOYED			MODES OF WORKING			NO. OF MINERS AND OTHER EMPLOYEES		KINDS OF POWER USED FOR VENTILATION				
	Hand-power	Horse-power	Steam	Drift	Slope	Shaft	Double entry	Single entry	Long wall	Pillar and room	Other employees	Miners, winter	Miners, summer
First	42	117	33	74	2	111	53	35	19	1,890	1,890	6,183	4,707
Second	42	117	33	74	2	111	53	35	19	1,890	1,890	6,183	4,707
Third	42	117	33	74	2	111	53	35	19	1,890	1,890	6,183	4,707
Fourth	42	117	33	74	2	111	53	35	19	1,890	1,890	6,183	4,707
Fifth	42	117	33	74	2	111	53	35	19	1,890	1,890	6,183	4,707
Totals	294	1,922	436	436	227	692	44	532	195	18,916	20,610	4,965	20,610
Number of mines in local trade	34	240	84	24	24	24	24	24	24	24	24	24	24
Number of mines shipping coal	50	21	87	84	84	84	84	84	84	84	84	84	84
Number of mines	84	261	171	108	108	108	108	108	108	108	108	108	108
Acres	23,798	13,471	23,142	23,142	23,142	23,142	23,142	23,142	23,142	23,142	23,142	23,142	23,142
Capital employed	\$1,630,600	\$1,049,600	\$1,714,600	\$2,453,775	\$2,447,616	\$2,447,616	\$2,447,616	\$2,447,616	\$2,447,616	\$2,447,616	\$2,447,616	\$2,447,616	\$2,447,616
No. of mines without escape- ment shaft	73	202	93	77	79	79	79	79	79	79	79	79	79
No. of mines with escape- ment shaft	11	18	6	10	10	10	10	10	10	10	10	10	10
Average price of coal per ton at the mines	30¢	30¢	30¢	30¢	30¢	30¢	30¢	30¢	30¢	30¢	30¢	30¢	30¢
No. of tons of coal produced	2,507,870	1,728,341	1,932,881	2,804,185	2,128,284	2,128,284	2,128,284	2,128,284	2,128,284	2,128,284	2,128,284	2,128,284	2,128,284
Average price per ton paid for mining	\$1.03	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01
No. of men injured so as to lose time	57	19	1	12	12	12	12	12	12	12	12	12	12
No. of men killed	11	6	6	8	8	8	8	8	8	8	8	8	8
No. of kegs of powder used	10,976	5,638	49,697	42,513	35,631	35,631	35,631	35,631	35,631	35,631	35,631	35,631	35,631
Average No. of days worked	175	163	194	203	225	225	225	225	225	225	225	225	225
No. of mines without escape- ment shaft	73	202	93	77	79	79	79	79	79	79	79	79	79
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Average price per ton paid for mining	\$1.03	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01	\$1.01
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No. of tons of coal produced	2,507,870	1,728,341	1,932,881	2,804,185	2,								

*Seventeen strippings.
 †Averaged for 100 mines.
 ‡Averaged for 98 mines.
 §Averaged for 112 mines.

ACCIDENTS.

The record of violent deaths and serious bodily injuries suffered by those engaged in mining, is very much smaller this year than last, because there have been this year no such sweeping disasters as that at Braidwood, where 69 men were drowned in one mine, and that at Coulterville, where 10 men were killed by an explosion. Omitting the mortality in these cases as exceptional, and referring only to what may be termed the average death rate from ordinary causes, we have for the year 1882, 40 killed, or one for every 227,891 tons of coal mined; for 1883, 55 killed, or one for every 192,887 tons of coal; and for 1884, 46 killed, or one for every 219,587 tons of coal. For the three years this gives us an average of one death for every 210,109 tons of product.

In Ohio the records for seven years show one life lost for every 244,404 tons; in Pennsylvania the average for the four districts in the bituminous regions in 1882, was one death for every 277,124 tons, and in Great Britain for eight years preceding 1880 there was one death for every 143,667 tons of coal wrought. Although these data do not cover the same periods, they are an indication of the relative experience in these mining communities, and the comparison is not in our favor. Our actual loss moreover, including the 79 killed at Braidwood and at Coulterville, was, for the three years, one man for every 134,661 tons of mineral produced, which is a greater mortality than appears in any of the other fields.

The causes of the accidents here reported, both fatal and non-fatal, will be shown in subsequent pages, together with other circumstances attending them, but we may briefly state that 164 out of 243 accidents of all kinds, or 67+ per cent. of the whole, were occasioned by the fall of overhanging rock or coal, which is always the most common cause of casualties in mines, and the most difficult to successfully guard against; that 15 were the result of explosions of gas; 17 the result of the premature explosions of blasts, and 47 were of miscellaneous origin.

As in other respects, so in this, the detailed reports of the inspectors will be found very full and explicit, and we merely present here the totals of the casualty list as follows:

Memorandum of Casualties for the year 1884—their number, character and causes, by Districts, for the State.

DISTRICTS.	FALLING OF ROCK OR ROOF.		EXPLOSIONS OF GAS.		PREMATURE DISCHARGE OF BLASTS.		MISCELLANE- OUS.		TOTALS.	
	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.
First.....	3	41	1	5	1	1	3	10	11	37
Second.....	5	14	1	.....	1	2	1	3	6	19
Third.....	8	29	2	.....	1	.....	1	13	12	42
Fourth.....	4	24	1	.....	3	2	1	7	9	33
Fifth.....	6	27	.....	6	1	6	1	7	8	46
Totals.....	29	135	4	11	6	11	7	40	46	197

THE SOCIAL CONDITION OF MINERS.

As a fitting complement to the reports of the inspectors on the physical condition of mines, we introduce here the statements of two intelligent observers, engaged for a time in procuring statistics for this Bureau, upon the economic and social condition of coal miners as found in two of the principal mining communities of the State. These will be found to portray with careful consideration of details the habits, home surroundings, and disabilities which environ the miner, and illustrate the better and worse features of the miner's character and life.

The first is a delineation of the situation in Streator, an important mining town in the northern part of the State, and the other refers to Belleville and its vicinity, near St. Louis.

STREATOR.

There are about 2,000 employes in and about the coal mines of Streator, who may be characterized as inside and outside workers.

The former consist of the band miners, about 1,450 in number, including perhaps 150 entry drivers; machine miners 18, slack shovelers 18, coal loaders 100, drivers 100, road and timber men 75, cagers 25, water boilers 25.

The latter consist of top laborers 82, blacksmiths 20, carpenters 20, engineers 25, firemen 15, bosses and weighmen 25.

Miners engaged in entry or narrow work will earn at least ten or twenty dollars a month more than those in rooms, and nearly as wide a difference may be found in the earnings of room miners in different shafts, and sometimes in different parts of the same shaft.

The greater part of the miners approached complain of hard times, and nearly all say it requires their utmost efforts to pay their way. The general statement met with among room miners is to the effect that \$35 per month will cover their average earnings. In the opin-

ion of your correspondent, who is a practical miner, the cause of the low average income prevailing is not so much due to low prices as to insufficiency of work. I think it a moderate statement to say that an average miner could earn in an average room at the present prices from \$2 to \$2.40 per day, but the trouble is he don't get the chance to earn it. He is called to his work by the whistle in the morning and obliged to stay there all day and often does not get an opportunity to load or put out any more coal than he can dig in half a day. If a shaft with a hoisting capacity of 500 tons daily keeps in its employ sufficient miners to dig 700 to 900 tons daily, the result can be easily foreseen.

In order to obtain fuller information respecting the manner and purpose for which the miner's income is expended, I have made inquiry among the principal merchants and business firms of this city, with the following result:

Rent. Rent ranges from \$3 to \$10 per month; miners usually renting the poorer class of dwellings, or as their income allows.

Fuel. Most of the coal companies allow their miners one load (ton) of nut coal per month, the cost of hauling which is 50 cents. This has to be augmented by lump coal at \$2.25 per ton or nut coal at \$1 per ton delivered.

Meat. Current price quoted in list. Butchers report that miners eat a greater quantity of meat than others when wages are good. Those of British or American nativity demand the best cuts, while Hungarian and some of the other continental people will take an inferior quality.

Groceries. The general statement of merchants is that miners demand the very best in the way of food, and in good times will purchase the greatest variety of choice victuals. In this respect they are more particular and use a better quality than artisans or farmers.

Boots and Shoes. They wear out a comparatively great quantity of foot-wear at their work, especially gum boots, which they need to protect themselves from water. Their outside wear is good but not of finest quality.

Clothing. The statement of clothiers is that miners require the best of men's clothing and furnishing goods; much better than farmers or mechanics.

Dry Goods. The testimony of dry goods merchants is that a very small amount of the finer trade is among miners. They usually wear the cheaper and medium grade of goods. In this respect, their purchases do not equal those of farmers or even mechanics earning a similar wage.

Books, Papers, etc. Inquiry at the daily local newspaper offices reveals the fact that out of a large subscription, about one-half of the subscribers are miners. The news stands and book stores depend largely upon them for their trade. It is noted that the extremes of literary taste prevails. Some of the miners buy the choicest magazines and scientific publications, but it is also true that the sale of "Police News," "Gazette," etc., is very heavy among this class.

Life and Accident Insurance. Very little regular life insurance is carried by miners, but there are several hundred of them connected with benevolent societies which have insurance features connected with them, on the assessment plan. The nominal insurance in these is from \$2,000 to \$4,000 per man. There are two assessment companies doing business here among miners, that have a considerable membership. Besides these, there are two straight accident insurance companies represented, which have about 400 policies in force, and which pay an average of \$7.50 weekly indemnity in case of disabling injury, and \$500 in case of accidental death. These companies have paid very heavy losses in Streator, and as a rule stand well with the assured.

Saloons. There are 29 licensed saloons in the city, each of which pays an annual license of \$500. There have been also a few unlicensed ones in the suburbs during the year. Almost all of them say that business has been unprofitable, and some will retire this year. We state, on the judgment of an intelligent saloon-keeper, that two-thirds of the dram-shop patronage is derived directly from miners. This may be an excessive statement.

I append also a few general observations on matters related to the subject under investigation, which may be of interest and use.

Homes and surroundings. The type of miner's home most frequently met with is a one-story frame, painted and plastered cottage, standing on a lot 50x150 feet deep. The house is commonly about 16x24 feet, with an addition about 12x14 feet. This class of homes will perhaps have an average value of about \$500. The number of miners who own their homes here is very large, and an observant stranger would deem it very remarkable. It is partially accounted for by the system of buying lots by installments which prevails here, and which allowed early settlers to purchase before land became too high. This practice of the early miners has become a custom, and now most industrious miners try to get a home of their own, and stop paying rent as soon as they can. Out towards the suburbs the lots are larger, some miners having as much as two or three acres, which they cultivate during the summer. There are also miners' homes which would sell for \$1,000 or \$1,500. Their furniture usually consists of tables, chairs, bedsteads, sewing machine, bureau or stand, sometimes a rag carpet, and pictures and other common household goods. There are cabinet organs in a number of miners' homes, and two or three pianos. There are neat and tidy housekeepers among them, and the reverse. The British and Americans have, as a rule, the best ordered households, while the Hungarians are the most regardless of cleanliness and order.

Health and Sanitation. Out of ten principal physicians interviewed, six gave their opinion that there was no more sickness among miners and their families than among a like number of families whose living was earned above ground. Four physicians were of the opinion that there was from one-fourth to one-third more illness among them, due, as they believed, to unhealthy conditions in mines and to less care being taken of the children in miners' families. It is stated that the miner is liable to a peculiar disease which is named "Miner's Consumption," caused by inhaling coal dust and

aggravated by impure air and damp mines. The disease is as fatal as regular phthisis, and several cases are cited in this vicinity. All agree that the surgical practice caused by accidents in mines is very large. It is held by some that in drainage and sanitary conditions the miners' homes as a whole are hardly equal to other classes.

Educational. Our graded schools compare favorably with any in the State, and the attendance is very largely made up of the children of miners. Many of the miners take an interest in educational matters, and they usually have a representative on the board of education. We have also a fine high school where a thorough course of training is given in classical and scientific learning. There are about fifteen miners' children in this institution, two of whom graduate this term. Besides this, a great many of the men have a thirst for self-improvement, which is ministered unto by a circulating library of over 2000 volumes. The ladies in charge of the library state that invariably the best class of scientific, philosophic and literary works are perused by miners. The passage of the new mining law has given a great impetus to the study of mining engineering in this vicinity, and it is now the ambition of many to pass a successful examination before the Board of Examiners of the State Bureau of Labor Statistics. It is felt that a certificate of competency from such a source will be a great aid in obtaining advancement.

Religious. There are fourteen churches in the city and eighteen religious organizations, some of the lesser ones being almost exclusively composed of miners, and in all, the miners are fairly represented. It may be proper to state that some of the most intelligent are radical in their tendency and deny the truth of current theological creeds altogether, while there also are many who are utterly indifferent to church influences.

Recreation. The amusements of our miners are varied. A large number of British miners have a fondness for sports, and hunting, fishing, foot-racing, shooting-matches, etc., are favorite pastimes. The lodges of the different friendly societies, which abound here, offer evening entertainment to some every night in the week. Social parties, balls, etc., are not uncommon, and music is studied with much delight by some. There are two brass bands composed largely of miners, and some vocal clubs are also kept up. It has often been regretted that there is no public reading room, gymnasium, or mechanic's institute to offset the strong attraction of the present place of resort—the saloon. Evening classes have been conducted from time to time by private parties with success.

Economic. The perplexing question of wages has not been so troublesome in Streator as in some other mining districts. The price of mining is settled annually on the first of April by a contract which fixes the rate per ton for the summer and winter season. There is generally more or less agitation about the time for signing the contract, but it rarely happens that work is suspended more than a few days. Many of the men here understand that their employers do not control the price of coal arbitrarily, but are themselves influenced by the condition of trade, and many credit their employers with the desire to pay as much for mining as is safe in the face of

outside competition. Some important ameliorations have been wrought in the mines by these persistent yearly agitations, which have partly crystalized later into the mining law; notably, in the matter of ventilation and in greater security to life and health. Several trades unions have been inaugurated here but with only partial success, until lately when the Knights of Labor—a secret organization—is said to have grown to large proportions.

Building and Loan Association. In this savings institution there are sixty-eight members who are miners, who hold stock to the nominal value of \$40,800—that is, it will be worth that or more if they complete their payments. The actual cash value at present date is \$7,304. This amount has been paid in within four years.

Bank Accounts. At one bank eleven miners keep open account, with balances in their favor ranging from \$10 to \$400. Certificates of deposit also are now out covering about \$3,000. Another bank does business with about fifty miners, who have balances in their favor of from \$15 to \$400, making an aggregate of about \$8,000 or \$9,000. One cashier observes that the Hungarian miners are most saving, or, at least, make most use of the bank.

Real Estate. The record book of one real estate firm shows that within the last ten years about \$70,000 worth of lots have been sold to miners, of which amount about \$10,000 remains unpaid. The head of the firm estimates that as much more has been sold by other parties. These lots have been largely built on, and it would not be extravagant to suppose that the improvements would be as valuable as the land itself.

Advancement. Most of the miners who have got ahead in the world have turned their attention to farming. Many have gone west from here; some have bought or rented farms in this neighborhood. Some few have tried mercantile business, and the partners in one of our principal houses have worked in the mines. Some have gone into the coal business on their own account, and one or two have grown wealthy in it. A few have gone into the saloon business, while the candy and pea-nut trade has come to be regarded as the thing for those disabled from work in the mines. Quite a number work their way up in the mining trade proper, especially since the introduction of so much machinery into mines, and the higher skill required to operate the various branches of mining of late years. The new mining law has created positions for some, and two miners from Streator found that the avenue to promotion. The elevation of the standard of mining engineering consequent upon the enforcement of the new law, is doing much to stimulate the ambition and thereby the intellect of energetic men in the mining business.

Mining Machinery. The Harrison Mining Machine is in successful operation in one of the shafts of the C. W. & V. Coal Company. Sixteen machines are employed and they are cutting an average of about 600 tons daily. The mine is given over to the use of machinery and no hand work is done except in the entries. About 170 men are now employed to do the work that formerly gave employment to about 240. A certain number of laborers are therefore displaced. The machinery was introduced without incurring any considerable amount of ill-will, and although not yet regarded with

special favor by hand-miners, it may be said that there is not much bad feeling or malice felt towards it. The employes about the mining machinery are the same as were formerly engaged in hand-work.*

Prospective. The indications at present are, that the coal trade will hardly be as good this year as the last. Already a large number of miners have been thrown out of employment by the dullness of trade, consequent upon the cessation of cold weather, and doubtless much inconvenience and perhaps distress will be occasioned before the men can find work again. Much of Streator coal is used by the farmers of the Northwest for fuel, and our trade is therefore very sensitive to the weather. Manufacturers also consume considerable of it, but perhaps the greater part is used by railroads. If we can get through the summer without suffering, the winter can usually be depended on to provide for itself, and even to pay the debts of the warm season. Most of our merchants make a practice of carrying the best of their miner customers in summer, although there is always more or less of loss in it. One of our heaviest dealers estimates his loss on miners at about three per cent., which loss he ascribes to their sheer inability to pay, and not, as a rule, to intentional dishonesty. Probably the greatest benefit in an industrial way that could accrue to miners, would be something that would divide the work more equally over the months of the year. At present there is a great rush of work in the winter, which draws a host of men from all parts of the country, only to be turned adrift in the spring again, or to stay through the summer and further subdivide the monthly pittance of older settlers. If some industry could be made profitable which would utilize the labor of these men in the summer time, and release them for pit work in the winter, it would be a benefit.

In Conclusion. I trust that these explanations may assist in giving a clearer conception of the condition of wage-workers in the mines of Streator, than would otherwise have been obtained. The person who gives them is one of the oldest resident miners in the place, and has no other motive than to aid in procuring reliable data, which may sometime be of value to those who try to unravel the tangled web of economic existence, and to ameliorate the condition of those toilers who, though not the "fittest to survive," may yet be the best.

BELLEVILLE.

Mining circles in St. Clair county have been in a disturbed condition since 1877, and since that time quite a large number of our miners have sought more profitable fields for their labor. The union, through which most of their troubles were adjusted, has been practically inoperative since that time. There have been occasional strikes, but, with the loss of practical organization, they have not been maintained with the accustomed pertinacity and endurance that previously characterized them.

* Since the foregoing was written there has been a prolonged strike on the part of the men employed in this mine, occasioned by a proposition on the part of the company to make some change in the manner of paying, which was construed to involve a reduction of wages. It was finally adjusted by a compromise.

One of the causes of the unsatisfactory condition of the coal trade in this section for many years has doubtless been in the maintenance of high rates of freight from points in this county, and the discrimination in favor of more remote points. A pool seems to have existed by which "war prices" were sustained, and the discriminations in favor of other points tended to build up a competition that threatened the impoverishment of our operators. This inflicted great hardships on our miners, by forcing them to share with their employers the disadvantages of these discriminations. Suspected bad faith, however, on the part of some members of this carrying pool, about six months ago, caused a disruption, and freights were cut down to nominal prices. These cuts of course enabled operators to move coal without much cost, but at the same time they stimulated a competition on other roads that kept profits as close as they were before the "break." Buyers alone were benefited. Since the breaking of the pool, prices for product and freight have been irregular and unsettled, and contracts have offered little or no improvement to operators. On the whole, the outlook for the coal trade, and for the miners, is gloomy in the extreme.

In St. Clair county there are ninety-three shafts, or "pits," that are in a condition to be worked, and the most of these pits are being worked on irregular time. A large number of them are used regularly, but the working force is not kept up to its full capacity except when orders are large and regular.

During the year a large mining district in the suburbs of the city of Belleville was flooded by the sinking of Richland creek. This calamity involved six mines, and years, perhaps, will be required to put them in working condition again.

We estimate in this county an average of 1,500 miners. There is, of course, more demand for labor, and consequently more miners employed, in the winter than in the summer. Our miners are mostly German and English, with a few Scotch and Bohemians. Quite a number of Hungarians worked among us a few years ago, but they have generally abandoned this section for other fields.

Of the mines in this county, there are a few that are worked by machines, and these mines have been worked with more regularity. They have kept employes engaged during the current year about three-fourths of the time. The employes earn, on the average, about as follows: Machine men, \$2.25 per day; blasters, \$2.25; helpers, \$1.75; loaders, \$1.50 to \$1.75; and drivers (generally boys), from \$1.50 to \$1.75. Taking into account the time earned in both machine and hand-worked mines, a fair estimate of annual earnings for the year would sum up about as follows: Blasters, \$500; shovellers, \$375; machine men, \$625; road layers, \$500; entry drivers, \$390; hand miners, \$290. There are, however, expenses in many instances to be deducted from these earnings, which, for powder, oil and tools, will foot up, on average, about \$40. These wages render it impossible for miners who have dependent families to live well, and the wonder is, among those who know their condition, that they appear as well and comfortable as they do. The average wages earned are about \$450 per annum, or about \$37 per month.

As a class, the miners of this section are liberal in their dispositions. It is hard, therefore, for them to reconcile their wants with their earnings. The Germans, perhaps, exceed their English and Scotch brethren in the love of their homes, and they are more provident in providing homes for their families; but the English and Scotch are proverbial for love of comforts and a good living. In the rural districts, the mining classes are generally "renters," but in the cities and villages quite a number have their cozy little homes, and they take great pleasure in surrounding them with an air of cheerfulness and comforts that would do honor to more pretentious domiciles. In cities and villages average rents will run from \$5 to \$7 per month, and in the country about \$5.

In the matter of fuel, the miners generally buy at the pit, and for the greater part use what is denominated "nut" coal, and they pay custom prices therefor. Any deviation from this custom is exceptional, and is also for quite a limited amount.

In subsistence rigid economy is practiced, and it is necessary. As a rule, all available space around dwellings, gardens, etc., are utilized to their utmost capacity for raising vegetables, etc.; and pig pens are quite common for their precious addition to the stock of provisions. We note the absence of cows generally among miners' families. A few of the more fortunate among them are provided for in this respect, but generally they are forced to dispense with the luxuries of milk and butter, or are compelled to buy. Meats are used to the extent of the ability of consuming miners to purchase, but it is a fact that a large proportion of them are living on light rations. As a rule, however, the best cuts of meats are demanded at the hands of the butchers, even if the quantity is quite limited.

In selecting groceries, fair qualities of all articles are sought for, though when purses hold out miners want the best of everything they can procure for their tables. They also like a variety of diet, and when able will have frequent changes in this respect. Being hospitable in their nature, and having pride to appear well among acquaintances and friends, they entertain at their homes liberally, and not unfrequently they will punish themselves with fasting, in order to feast their friends for a brief while.

The miner here wants to be comfortably attired when he is at work, but the nature of his employment satisfies him with plain and substantial clothes. He also wants his "Sunday suit," and he is quite particular to have it look well, and to consist of a fabric that is appropriate to the occasion for which he uses it. At the same time he is proud of his wife and children, and their deprivation in the premises affects keenly the pride of the husband and father. It is too true that they are compelled to practice much self-denial in this respect; and their appearance, and that of their families, in contrast with better times, is quite apparent. What is true of them in wearing apparel is also true in the matter of dry goods, shoes, hats, etc.

Our miners are fond of reading, as a class, and a large proportion of the older ones, without pretensions to scholarship, are quite well posted on current events of the day, and some of them have

read history with profit. Newspapers have easy access to their fire-sides, and he is quite poor, indeed, who does not take some newspaper or periodical. As a class, however, they do not grasp after numerous ideas, preferring to learn well that they do enlighten themselves upon. It is seldom that you visit a miner's home without finding some book to read that is entertaining, and occasionally you will find the works of some standard authors in their humble and scant libraries.

The children of miners here generally find places in our public schools, and, while their attendance may not be as regular as that of children generally, they, as a rule, succeed in procuring a fair knowledge of reading, arithmetic, etc., and, in some instances, they acquire a considerable knowledge of the higher branches. The parents take a pride in affording all facilities in their power for the education of the children, and the latter, generally, are not tardy or reluctant in going to school.

In religious affairs, there is quite a diversity of opinion, but the Catholics and Free Methodists appear to predominate among the religious classes. Some families are very devoted to their faith, and are, of course, very pious. But the largest number are not religiously inclined, in a popular sense of the term. Amusements find devotees among the largest proportion, but they are quiet, tractable and tolerant. The latter class are fond of athletic sports; and shooting, pitching quoits, leaping and other sports are much patronized. Besides being eminently sociable, they are fond of social parties, dancing, etc., and will have their amusements. At the same time, no class of our citizens are more orderly, or have more respect and tolerance toward others who may not participate with them in their social amusements.

The life insurance among the miners is confined to the different societies and orders to which they belong. A few years ago, when their wages amounted to fifty or seventy-five per cent. more than they now do, this kind of insurance was quite general, but the hard times now prevalent have caused a number of forfeitures. There are, however, quite a number who manage to keep up such insurance in policies ranging from \$500 to \$2,000, and a few of the more thrifty even manage to maintain larger policies. There is much regard among them for afflicted and deceased members, and it is an extreme case when they accept pauper benefits, either for the sick or dead. They have an innate pride that renders such assistance abhorrent. As a rule, they care for their sick and bury their dead with appropriate honors.

There is but little total abstinence among the miners, and it is rare that you will find one who refuses to indulge in the social glass. In this section, beer is almost the universal drink with them, and their patronage to the beer saloons is an important item in this peculiar traffic. All mining villages have their saloon or saloons, and smaller communities frequently manage to procure packages, or kegs, of the liquid in common and use them. Still there is no more drunkenness among miners than other classes.

As already stated there is a disposition among the miners here to own their homes, even if such homes are humble in their sur-

roundings and conveniences. This is especially true of the Germans who live in the suburbs of the city and in villages. Many have these little homes, and their spare time is well utilized in improving them. This class is, however, a favored one. The largest proportion are renters, and in rural districts it is quite exceptional to find a freeholder among them. Those who do own homes generally acquired them when times were good as compared with the times now. Scant earnings now forbid the idea of hoarding for any such purpose. As a rule, those who own their homes manifest commendable pride in surrounding them with all conveniences, and they generally furnish their houses with neat and plain furniture. Ornamental plants and flowers are quite common in their yards, and they take pains to have all surroundings cheerful and inviting. In the country, an occasional miner is found who has in cultivation his small "truck" patches, from which he derives considerable in the way of edibles, and in the villages all available space not surrendered to flower-beds is utilized for raising vegetables.

Improved ventilation and mine appliances have tended to improve the health of the miners of this section, and as a class they will compare favorably in this respect to others. There has been marked improvement in the sanitary condition of our mines, and it is conjectural now whether peculiar diseases are developed in mining. The disease, called "miners' consumption," is not recognized as a distinct disease here. Accidents are, however, quite frequent, and are attended with considerable fatality.

Everything considered, the wonder is that our miners are in as good a condition as is represented. The coal trade has been depressed for several years, and there is no immediate prospect of an improvement in this respect. One additional feature of distress caused by the dullness of the trade is developed in the fact that there is not employment for all the miners. At times the operators work with full force, and then again they limit the quantity of coal to the wants of the trade and discharge many of their employes. This has occasioned many young men to seek other places for work. In fact, with present low earnings there is not constant work, and it seems that the outlook at other points is not encouraging. With apparent distress in industries that consume large quantities of coal and no prospects of early relief, it seems clear that many miners will be compelled to seek other vocations. Quite a number have already abandoned the business and are engaged in other pursuits.

In conclusion I will say that the foregoing report is made from general observation and inquiries among the most prominent among this class of our fellow-citizens. In the absence of data from which I could enter more into details, I have been compelled to draw largely upon observation, but I have been careful to keep within the bounds of truth, without giving color to anything mentioned.

FIRST DISTRICT.

MR. J. S. LORD, *Secretary of the Bureau of Labor Statistics, of Illinois :*

SIR—In compliance with the requirements of an act of the General Assembly of the State of Illinois, approved June 21, 1883, I herewith submit my first annual report as Inspector of Mines for the First Inspection District of the State, embracing the counties of LaSalle, Grundy, Will, Kankakee and Livingston.

Beginning at Braceville, I found the mines in very poor condition in regard to air and air-ways, with nothing but the exhaust steam from the pumps to produce an air current in either mine. The roadways in which the coal was run were in little better shape, and altogether they looked like mines about to be abandoned.

The following improvements have since been made:

At No. 3, an escape shaft has been completed and equipped, according to law; the main air-ways have been enlarged from a sectional area of 11 feet to 36 feet; a fan has been placed in position forcing into the mine 32,000 cubic feet of air per minute, as against 6,000 feet last November, and the roadways have been considerably improved, though not as much as they ought to be and will be in the near future.

A fan has been built at No. 2 which is exhausting 27,000 cubic feet of air per minute. The air-ways have been increased from 12 to 36 feet, sectional area, and greater care is taken of the roadways. Safety catches have been placed on all their cages, and fences at the mouth of the shaft.

Casualties range high in these mines. They probably are the most dangerous workings in the State. The large amount of water continually percolating down through the soapstone, makes it drop without the least warning, often burying the miner below it, and sometimes causing death. Nothing but the most judicious care and cool judgment on the part of the miner, together with the most liberal supply of props and caps on the part of the company, can secure safety to the miner in his own room.

WILMINGTON STAR.

At the Wilmington Star mine, Coal City, I found the air poor but air-ways fair. I examined the fan and found the engine unable to drive it over fifty revolutions per minute; notified Mr. Campbell about it and he cheerfully consented to have a new engine put on. This was done, and on my second visit a large increase in the volume of air was the result. The air was then split into three currents which again increased the volume, but there are other improvements to be made which have not yet been begun.

No. 2 Shaft. This shaft went down on a fault and the work has been pretty much prospecting for coal, which they now think they have got. The mine employs only a few men, and is very wet; the air is sluggish owing to its being ventilated with steam. Mr. Campbell has consented to put in a fan at once. This company has put safety catches on all their cages during the year.

WILMINGTON MINING AND MANUFACTURING COMPANY.

Here I could not carry a lighted lamp to the face of either east or west entry. After the inundation of their No. 2 mine, where so many valuable lives were lost, they pushed ahead with single entries and turned rooms off both sides, thus necessitating the air being carried with canvass doors. This was persisted in until a light could not be carried to work by. Work was abandoned after my first visit, and the places stopped that were ahead of the air. Here again the fan engine was unable to perform its work. After communicating with the head office in Chicago, another was put on amply able to run the fan up to the requirements of the mine. This company has also fenced their shaft and put safety catches on their cages.

EUREKA COAL COMPANY.

This is a new shaft, sunk since the last county inspector's report. They have got their escapement down and a fan started; they have also fenced their shaft and put safety catches on their cages. It was quite a task to get this company to recognize that the law would be enforced if necessary in the courts, and as a last resort the suspension of the mine would be asked for.

SUFFERN BROS., COAL BRANCH JUNCTION.

Here the air was poor in some parts of the mine. Owing to the bad condition of the air-ways in the return air passage, it was impossible for a man to get through it, and there was no road to the escapement from one side of the shaft. This has been remedied and the air current given a free passage to the upcast. This company has also put in new guides and safety catches on the cages.

WILMINGTON AND SPRINGFIELD COAL CO.

In this mine the air was sluggish but not what miners would call bad air, although a long way below the requirements of the law; air courses rather poor, and only the exhaust of the steam pump as a ventilator. I insisted on a fan and it is now running; they have also put safety catches on the cages.

STREATOR AND WILMINGTON STAR COAL CO.

This is a new company in this field, their No. 1 shaft having been sunk last fall. No place has been more trying to the patience of the inspector than this. They were so slow in putting in their permanent machinery that I was about to appeal to the courts, when they finally went to work and put it in, although it is not quite finished yet. The escapement shaft is down and the next thing required is the erection of a fan. At present the mine is ventilated with a steam jet. They have put safety catches on the cages and fenced the shaft.

GOOLDRIDGE COAL COMPANY, MORRIS.

This is a small mine operated by the Gooldridge Coal Co. During the winter months the ventilation is good. They only employ from ten to twelve men in summer and for only about two days per week. It was started as room and pillar work, but they found it impracticable to work the coal by that system. Then it was started as long wall work. It is ventilated by steam, but I have been urging the use of a fan, and expect they will put one in shortly. They have put down their escapement. In connection with this I might say that on my first visit I condemned one of their hoisting ropes which they contended was good, but it broke the same afternoon, letting the cage fall to the bottom.

TAYLOR WILLIAMS' MINE, GARDNER.

This mine on my first visit was partly ventilated and the air-course has fallen in since then. They have completed their escapement shaft, and placed a fan on it; also cleaned up their air-course so that now it is one of the healthiest and safest mines in the State.

BURRELL AND FELFER, MORRIS.

Their machinery was in such poor condition and their boilers in such a dangerous state I threatened to prosecute if they did not stop until it was put right, so they ordered their men to bring out their tools, and abandoned the mine.

James Heather is sinking an escapement shaft. I expect it is down by this time.

Alex. Felfer has completed an escapement during the year.

As for the other small mines around Morris they seldom ever get so far from the shaft that an escapement can be of any practical benefit, as they are so shallow that it pays better to sink

another hoisting shaft than to keep water out during the summer months when they have nothing to do. I found all the shafts unfenced, and it is almost impracticable to do it, as they hoist the cars without cages, so I ordered cages to be put in so that the mouths of the shaft could be secured. Some of them are going to test the law on this point.

WILL COUNTY.

CHICAGO, WILMINGTON AND VERMILION COAL COMPANY'S MINES.

"G" Shaft.—There is little to complain of here. The ventilation is good, roads in good condition, all their machinery is good, and generally the state of the mine leaves little to be desired.

"H" Shaft.—This was considerably deficient in ventilation. The air-course was considerably fallen. This has been cleaned up, and a new fan built. Doors have also been set up to conduct the air to the face of the workings.

"I" Shaft.—This is a splendid shaft, ably conducted and in every way up to requirements of law. This company has put safety catches on all their cages during the year.

EUREKA No. 1 SHAFT.

This shaft had the most dangerous roads that I ever saw in a mine, indicating gross carelessness on the part of the officials in charge. The place was a total wreck, so I gave two days' notice to the superintendent in charge to appear in court and show cause why the mine should not be suspended until such time as it was made reasonably safe. They, however, promised to set men to work at once to fix it up, and the County Inspector subsequently notified me that they were doing it, but for some reason they finally surveyed it up, and abandoned it before my next visit.

ALBRIGHT WILMINGTON COAL COMPANY.

"A" Shaft. This is just a new shaft, the old one having been abandoned and used as an escapement and air-shaft. Here as everywhere else where steam is used as the ventilator, the ventilation becomes impaired during the summer months. I started out to have a fan put on and I now have the superintendent's promise to put one on. With proper care the steam would have served them and given them plenty of air until next spring, but at four of my visits there have been three different managers, each having his own favorite theory, and none of them willing to spend the necessary money for real improvement.

"B" Shaft. This formerly belonged to the Wilmington and Springfield Company. They had their coal nearly worked out, and the Albright Company having coal contiguous to the shaft, bought it, never suspecting that they would have to put it in order if they intended to run it. After I found that a new company had taken it, I paid it another visit and demanded that they should set it in

order, get a proper escapement shaft, and get it sufficiently ventilated. This they promised to do, but on going back two months after I found it in the same fix as at first. I then notified them to appear in court and started for Joliet to file the necessary information against the company, but was called away to Braceville by the death of William Bedington. I then empowered the County Inspector to proceed to Joliet and enter information. This he did, but the prosecuting attorney would not proceed until I went personally. I went, and one of the directors of the company asked fourteen days to sink their escapement and build the fan and have it running. I thought this better than I could get in the court, so I granted it. When I went there in July I found that they had put up a fan that was nearly useless. I know of no means now but to prosecute. They put down their escapement, and, consistent throughout, let the road close leading to it, although it is now open.

CO-OPERATIVE MINE.

The Co-operative mine is all right; good air, and roads fairly safe.

YOUNG AND WILSON.

This mine is now all right, but the air was very bad before the escapement was sunk.

KANKAKEE COUNTY.

CENTRAL ILLINOIS COAL COMPANY No. 1.

Here there was no escapement nor fence around the shaft, and no safety gates on top. Everything appeared to be run without regard to either health or safety. The air was simply deplorable, the mine was nearly closed all round so that there was no way for the mine to be ventilated. I had the shaft fenced and safety gates put on; then the escapement shaft was sunk and a fan put up. I have not been there since the fan was started, but I know that the ventilation must be good as the fan has now a good chance.

No. 2. The same may be said of No. 2, they being alike in nearly every particular except that the air was a little better in this mine. They have got their escapement and fan so that I judge they are in good shape.

KANKAKEE COAL MINING COMPANY—CLARK CITY.

This mine was in fair condition for air, but it has been idle all summer with little prospect of starting in the near future unless some other company undertakes to run it. In that case the new proprietors will have an escapement shaft to sink.

LIVINGSTON COUNTY.

PORTER, WAGER AND Co.

This mine on my first visit was in very poor condition. My own light and that of the pit boss died out for want of air before we got to the face of the room on the first of the current. I tried to go back to the return air-course, but it was an utter failure. There was no room to either walk or creep, so that part of the mine was abandoned and the air turned on another section that had a better airway, though poorer coal. On my last visit the ventilation was fair but there was only about ten men working in the place.

WALTON BROTHERS

This mine is in fairly good condition, the roads are well looked after and the air is good. Here the miners blast the coal without undermining it, but regulate their blasting so that it only takes place at noon and at quitting time. It would be well if the miners adopted this system wherever a large quantity of powder is used.

W. H. LEVERS.

This shaft is shut at present, and I have notified Mr. Levers that if he attempts to open it before sinking an escapement shaft he will be prosecuted.

COAL RUN COAL COMPANY.

Reading shaft abandoned.

CHICAGO, WILMINGTON AND VERMILION COAL COMPANY.

No. 3 shaft nearly abandoned. The company is preparing to start their new mine which has been opened to the coal the last two two years.

STAR COAL COMPANY.

This mine is in fair condition, but there has been considerable carelessness in conducting the air. They seldom put in a close stopping so that the air is allowed to escape before reaching its destination. This is gross negligence. The machinery at this mine is in very poor condition, but they are stopping to fix it. This is another company that it is hard to get to do anything. I have to continually urge them on. They have put in new guides and safety catches on the cages.

Of the gin shafts in this county, Fairbairn and White stands first in ventilation; James Carr, second; then Jacob Moon, Thomas Edwards, Thos. Walford, John Williams, Alexander Helm and Richard Evans in the order named. Marshall & Co. abandoned their old mine and they have a new one down to the coal.

LASALLE COUNTY.

CHICAGO, WILMINGTON AND VERMILION COAL COMPANY.

No. 1 Shaft. There are two fans ventilating this mine, of the Champion pattern, one of them being ten feet in diameter. It was set to work one year ago and geared with a wire rope; the difficulties with it have been considerable, owing to the engine being too near the fan, the rope not having weight enough to give it tension. The result was that it slipped on the sheaves, occasioning lost motion. Then tension wheels were put on but they wore out the rope so soon that it would sometimes break in a few days. This has now been abandoned and the engine is to be moved to the fan and geared with teeth gearing. This will do away with all lost motion, and as the engine is powerful enough there is no reason why the air should not be good. The air-ways are good and they have been shortened up as much as possible.

No. 2 Shaft. Air-ways good and generally the mine is in good condition.

COAL RUN COMPANY'S MINES.

No. 2. This has been put down to No. 2 seam and it makes considerable fire damp. There has been but little done in it yet, but a fan has been placed in position and the ventilation is strong and good.

No. 3 Shaft. This is in fair condition, but the fan is not run as fast as it ought to be. I ordered it run to 450 revolutions per minute on my last visit, and it was promised to be done.

RIVER BANK COAL CO.

This mine has been ventilated with steam, but they are building a fan, and promise to have it running in a week.

STREATOR COAL CO. MINES.

At No. 1 Shaft I objected to the fan they had running, and asked for a larger one. They concluded as the mine was not a paying one, and as they had another shaft to sink for water, they would work out the rooms they had opened and abandon the mine. It will be finished in about two months.

No. 2. They are at present building a fan for this mine. It has formerly been run only during the winter months, but owing to No. 1 being abandoned, it will be necessary to run it the year round; hence the necessity for a fan. This mine is approaching abandoned workings, which are filled with water. I have ordered them to start bore-holes as soon as they get within one hundred feet of their line. I have a survey of the abandoned mine.

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LaSALLE COUNTY CARBON COAL Co.

LaSalle Shaft.—This is in fair condition. The shaft has been repaired during the year where some of the timbers were giving way.

Rockwell Shaft.—This has been run only as an aid to LaSalle shaft, but it is expected to run steadily in the future. The airways have been cleaned up and enlarged during the year.

MATTHIESSEN & HEGLER ZINC Co.

This mine has always been in good condition. Escapement shaft completed and equipped during the year.

ILLINOIS VALLEY COAL Co.

These mines are in fair condition, the air having been changed and split into three currents during the year at No. 1 mine. No. 2 is near the shaft yet, and can get as much air as the men desire.

OGLESBY COAL Co.

This mine has had all the air passing around in one current, so that by the time it got around the circuit it was heavy and loaded with impurities. They are now at work making a road to have it split in two, which will improve it for those on the last of the circuit.

MITCHELL & DUNCAN.

Shaft at present abandoned. LaSalle County Carbon Company is talking of buying it, but the sale has not been completed yet. It wants an escapement, which is now due, and whoever may purchase it with the intention of running it must proceed with the escapement at once.

JAMES CAHILL MINE.

This had a very poorly constructed fan, and the mine being beyond its capacity the past year, I felt it my duty to stop a portion of the mine. I had called their attention to it several times, but it did not have the desired effect. They are now building a new fan that will be amply sufficient. They have completed their escapement shaft.

SENECA COAL MINING Co.

This is only a small mine; is well ventilated, and they have now their escapement down.

UNION COAL Co., PERU.

This mine has very careless management. They allow the fan to slow down below the requirements of the mine. I have gone there several times and found it running at half speed. This is sheer carelessness. When I am down, the fan is run at full speed, and

then suddenly is allowed to go down again. They will allow canvas doors to go to pieces without replacing them. In this way, with all the requisites for ventilating a mine at hand, the miners may be made to suffer continually with bad air. They have enlarged, and made a good road to the escapement shaft during the year.

REMARKS.

Having gone over the principal mines separately, I am forced to the following conclusion:

First that there is gross carelessness on the part of some of the companies, but more on the part of mine bosses, whether from lack of knowledge of the responsibility that rests upon them, or lack of ability to execute the work they have undertaken, it is not for me to say. The law does not provide that none but competent practical men shall be allowed to have charge of mines. This is one of the defects of the law, and will have to be remedied sooner or later. A little conversation I had with a mine boss will illustrate this. On going down the mine for the first time he told me how well his mine was ventilated. He said he had nine currents of air in circulation so that the miners got fresh air in every department of the mine. I told him I was glad to hear of it, as I knew that the mine had a rather unsavory reputation in that respect. I went round the mine and found only two currents, and one of them passing through a hole that a man could not crawl through. This had to supply over 100 men where each man would burn three pounds of powder per day. After going round the mine I asked him where his air currents crossed one another. He asked what I meant. I said if he had nine currents they were bound to cross each other at some point, and I wanted to see his crossings. He said he had not got any yet, but if it was necessary they would have to be put in. Now this man, in charge of an important mine, had not the remotest idea what an air crossing was, neither did he understand any of the principles of ventilation, and this is not an isolated case. There are some who hold that a small air-way is better than a large one, because they say the air travels faster through the small one and is better enabled to sweep the impurities along with it. To all such I would say that large air-ways and powerful fans are the salvation of the miner. The mine gives off its gases continually, and the more air you have to dilute them the purer and healthier it will be.

Again, the law says, that 100 cubic feet per man per minute shall be supplied, to be measured at the bottom of the downcast shaft. It takes no notice whether the mine generates gas in large or small quantities, or whether it generates fire damp or not. Now it is well known that a mine with a large amount of gob, or waste, needs a larger quantity of air in circulation than a small mine, and yet may not be so healthy; besides large mines of necessity must have more leakage, reducing the volume before it reaches the men. Again, where large quantities of powder are used no provision is made for it in law.

Now, my experience during the past year is this, that the Wilmington coal field is better and healthier with 75 feet per man per minute than either the Streator or LaSalle coal field is with 100 feet. The difference is this, that in Streator large quantities of refuse are thrown back in each room, this gradually heats and slow combustion goes on, throwing off noxious vapors into the air current and soon rendering it unfit to breathe. Sometimes this kindles into a furious fire making it impossible to get in at all: then the process of shutting it off and smothering it out is the only remedy.

In the LaSalle coal field the packs which the miners put in to support the roof, as must be done in all long-wall workings, frequently heat up to the point of active combustion, throwing off poisonous gases and raising the temperature of the mines until the air becomes unfit to breathe, and this takes place where the legal quantity of air is circulating.

Again there is nothing in the law to compel the air to be split and separated into distinct currents so that the men may have a share of pure air. A mine boss may send one current around the whole mine and before it gets to the last of the men it is a positive poison. Something ought to be done to remedy these defects in the law so that the mines may at least be free from impure air. The officers of the mines, however, are not altogether to blame for impure and deficient air. The miners are to blame for a great deal of it; they will fill a cross-cut with the refuse of their room as soon as they have finished putting it through, thus rendering it entirely useless for the purpose intended. It is not uncommon for a canvas door, newly put up, to disappear from its place, and men will suffer the air to go to waste, to satisfy an abnormal craving for petty pilfering. This is a practice that should be severely condemned and promptly punished.

ACCIDENTS.

So long as mines are worked, so long will they continue to furnish their annual crop of accidents. While many of the accidents reported are slight, they are enough to show that the miner's life is an extremely hazardous one. Accidents usually happen in the miner's own room, where he is supposed to take care of himself, or arise from disobedience of instructions received beforehand. Sometimes a complaint of no props is heard, but in all cases that came under my observation it was not the lack of props which led to the accident, but a fancied security on the part of the miners themselves. They often take risks that are entirely unnecessary, and reap the penalty of a broken limb or perhaps a premature death. Sometimes the mine manager may neglect or refuse to furnish props in sufficient time, but even then the miner ought not to take any risks; he ought to complain in the proper place, and have the matter investigated and set right. Instead of this, they will run the risk of working in danger often when their better judgment tells them that they ought not to do it. The miners are entitled to sufficient props with caps suited to the nature of the roof, also a ready means of escape from

the mine in case of accident from any cause, and good ventilation, with safe roads to travel. Wherever these are not furnished, the company is guilty of a crime against the law, the workmen and society.

WATER.

All the Braidwood coal field is overlaid by a level prairie which at certain seasons of the year is covered with water, rendering it dangerous to enter the mines to work. The mines being shallow and the overlying strata soft, it is possible that it may give way at any time, and inundate the mine in a few minutes, destroying the lives of all miners that may happen to be in the mines at the time. To provide against this an escapement shaft is only a partial remedy—the rush of water may prevent the men reaching it, as was the case in the late Diamond Mine disaster. The only safe method is not to enter the mine when a body of water is overlying the workings. A ditch has been made that carries the water away in a few days, so that the working of the mine would be very little interrupted if the men refused to go down until the water had subsided sufficiently to render the mine safe.

Fire, water, and the noxious vapors of the mine, all conspire to make the miner's occupation one of no ordinary hazard. Add to this a bad roof, and the necessity of working with a very feeble light, with the many contingencies that can not be noticed here, and we get an idea of the hardships that attend the miner's lot.

STRIKES.

This district has been comparatively free from strikes since the publication of the last report. Prices for mining have remained the same, with the exception of the LaSalle coal field, where a reduction of five cents per ton took place on the first day of July. This the miners accepted without any cessation of work.

On the first of June the C. W. & V. Coal Co. put a notice up at No. 2 shaft that on and after that date a change in the system of paying for the loading of coal after the machines, would be introduced. Formerly the loaders had been paid $37\frac{1}{2}$ cents per ton. The company wanted to pay for loading by the room, offering \$3.50 per room. This the miners refused, urging that it amounted to a reduction. The company held that it did not, but that the coal from No. 2 was so foul with slack and dirt that they proposed to adopt a new system of screening, and they thought it better to adopt the method of paying by the room, so that they could screen it to suit themselves. The miners then wanted \$4.10 per room, or the price they had before quitting work. Finally the company offered \$3.62 $\frac{1}{2}$ per room. This the miners refused also, and the strike was continued until the 20th of August, when an agreement was made to pay $37\frac{1}{2}$ cents per ton, with a door in the screen to prevent the coal going down to the railroad car too rapidly, and thereby cleansing the coal more thoroughly. Thus ended one of the most orderly, quiet, and yet most determined strikes of which I have any knowledge.

While on the subject of strikes, I would say that they are always to be deplored. In whichever way they are viewed, they are always bad for the men engaged in them, and sometimes disastrous to the company. It would be better for all concerned if a kindly feeling was cultivated between employer and employé. If reason took the place of prejudice, they could enter into one another's grievances, and discuss them in a friendly spirit, not as belligerents on the point of declaring war, but as men who felt that the prosperity of both parties depended on the discretion and justice of each. Such a state of things has long existed in Streator, and anything that would mar or destroy this feeling would be destructive to all interests concerned.

MACHINERY.

The machinery in this district is generally good. A pair of coupled engines are generally used for hoisting, although there are exceptions to this, a few using single engines. The boilers are ordinarily good, and the companies have complied with the law in regard to regular examinations. They have returned certificates of boiler inspection, but have sometimes been rather dilatory about it. They frequently have to get their boilers overhauled and sometimes repaired before the certificate can be filled. This accounts for the delay.

SCREENS.

The screens in this district are all seven-eighths of an inch between the bars. In the Wilmington coal field the bars are ten feet long, and uniform all over the field. In Streator the bars are thirteen feet long, at small mines six feet long, and in LaSalle they are from ten to fourteen feet long. Most of the principal mines have a check-weighman on top to see that the coal is fairly weighed. He is paid by the miners and is generally selected from their own number, once a year. The method of selection is: A meeting of the miners is called for the purpose, candidates are placed in nomination, then a vote by ballot is taken, and the candidate receiving a majority of all the votes cast is declared to be the weighman for the ensuing term; the miners, however, reserve the right to discharge him at any time and employ another in his stead.

SCALES.

All the large mines weigh their coal on track after it passes over the screen, and the amount is credited which the scale indicates. Small mines have platform scales, but there is a percentage allowed for screening which varies according to the nature of the coal and the quantity of waste it is known to give. Smaller mines still, that only supply farming trade, generally load by measure, giving from three to four cars for a ton according to the size of the car.

COAL WASHING MACHINERY.

Messrs. Luther and Tyler have put up a machine for the purpose of washing the slack or refuse of the mines around Streator. It is situated about two miles from the city on Otter Creek, and consists of an elevator, screens and pump, with necessary machinery to drive them. The railroad cars are switched in below the elevator, where men stand and shovel the slack into them. It is then carried up to the top of a chute and sent down on to a reciprocating screen where it is washed with water, being shaken all the time by the action of the screen and the water. The screen is one-eighth of an inch between bars. A set of brushes is kept going under the screen to prevent its clogging or getting stopped up. The action of the water reduces the clay and other impurities to a pulp and it passes through the bars in the shape of mud. From there the coal is taken to another screen and subjected to another drenching with water, and is then dumped into the cars for shipping. The machine is capable of handling twenty-five tons per hour, and the company finds ready sale for the washed screenings at remunerative prices.

COAL MINING MACHINES.

Coal cutting machines are only used at two mines in this district, the C. W. & V. Coal Company's No. 2, and the Union Coal Company's mine in Peru. No. 2 mine, Streator, is run entirely by machinery, the company paying \$2.10 per room. Of this sum the machine operator receives \$1.20 and the shoveler 90 cents. For this remuneration the room is undermined four feet and a width of twenty-four feet; this will furnish from 10 to 12 tons of marketable coal. Three rooms are considered a good day's work of ten hours. Each machine employs an operator and shoveler. There are four loaders and one timberman to every two machines. The capacity of each cutter is from 30 to 36 tons per day.

The Union Coal Company pays for mining by the square foot, two cents being allowed for each square foot undermined, the company engaging and paying the shoveler, who generally receives about \$1.60 per day. This leaves \$1.90 to the machine tender for each room four feet in depth and twenty-four feet wide. The capacity of a machine in this mine is about twenty-five tons per day of ten hours.

Coal Run Coal Company introduced the Lechnor machine, but, after a thorough trial and a large expenditure of money, it was abandoned.

The success of coal mining machinery is still problematical. It requires a large expenditure of money to get them in operation, and then the seam may not be adapted to their successful use. They have all been abandoned in the Wilmington coal field. This indicates that they are not successful in long-wall workings, and it is very doubtful if they can be made uniformly successful in any coal field taken as a whole. There is every reason to believe, however, that in the near future a machine will be perfected that will

accommodate itself to the varying conditions met with in all mines. At present the Harrison seems to have more of the requisites of a successful coal cutter than any other.

RECAPITULATION.

We find on looking over the foregoing statements that considerable progress has been made during the past year, and that if the work done is deemed insufficient, it must be remembered that a large portion of the field was a new one, and the time in which to make improvements exceedingly short. But to sum them up we find that sixteen escapements have been put down and equipped, while others that had no road to reach them have had roads cleaned and put in repair, thereby becoming more easily accessible to the miners in case of accident to the machinery, or from any other cause.

Two more shafts are under way to procure escapements, and two have been abandoned for refusing to construct them.

Nine fans have been built and put in operation and three more are being constructed, and the ventilation has been increased in other ways, such as cleaning the air-ways and enlarging them, also shortening the circuit where practicable.

Safety catches have been attached to nearly all the cages, and those who have not got them on have them in preparation.

Twelve years ago there were no fans in use in the mines of this district, and it was practically impossible to work in the summer except on days when the atmosphere was cool and clear. Only five years ago I could tell whether it was possible to work in the mine by watching the direction of the wind. A south wind invariably stopped work. Air was called good if we could get our lamps to burn. What is known as bad air now was then known as good. The rapidity with which poorly ventilated mines are disappearing gives promise that they will soon be things of the past, and I for one say speed the day. This and many other minor evils are fast passing away, and will only be remembered as characteristics of the dark days before mechanical ventilators were introduced on shallow mines.

A better feeling exists between employer and employèes. They are both less liable to act on impulse. They generally reason their differences and try to reach an understanding before committing themselves to any rash policy. It is better that it should be so. Workingmen have nothing to gain by striking and fighting their employers. On the other hand the employers have much to gain from the good will and confidence of those they may employ, while they are great losers by having that confidence disturbed. Let each of the parties to any agreement be convinced of the integrity and honesty of the other, and a solution can be arrived at peaceably and with honor to all concerned, but when prejudice gets in and they believe that each is trying to gain an advantage over the other, then confidence is destroyed and strikes, suspensions and lockouts follow, with all the innumerable evils resulting from them. The employer and his workmen become enemies, and whichever side wins, the other vows vengeance at the first opportunity. Hence it

is only an armed truce, ready to be broken at any time when either party can find an excuse. Let us hope that this state of things has gone by, and that an era of peace, prosperity and good will has been inaugurated which nothing will be allowed to interrupt.

Very respectfully,

ALEX. RONALD,

Inspector 1st District.

CASUALTIES IN THE FIRST DISTRICT.

FATAL ACCIDENTS.

No. 1—September 14, 1883. James Galloway, aged 35, married, leaves a widow and five children; died from injuries received by falling of stone on his roadway, near the face, at shaft No. 2, Braceville.

No. 2—September 16, 1883. Thomas Stacker, aged 36, single, fatally injured at Diamond mine, Braidwood, by explosion of blast which was supposed to have missed fire and which he was examining. He died three days after the accident.

No. 3—October 1, 1883. George Huffard, aged 49, married, leaves widow and seven children; died from the effects of a fall of rock on the main road at Eureka Coal Company's shaft, Braidwood.

No. 4—October 23, 1883. Harman Otto, aged 35, married, and leaves a widow and three children. He was a night man, and run an empty car into the open shaft and fell with it, causing instant death. The gate for the protection of the top of the shaft had been broken half an hour before the accident, and laid aside until morning. Otto was at the time cautioned by the engineer about approaching the unprotected side of the shaft. He was, however, entirely unaccustomed to the business.

No. 5—October 25, 1883. Joseph Hall, aged 14, single, driver at shaft No. 3, Braceville, was found dead under his car; supposed to have been run over while going out with two car-loads of dirt.

No. 6—October 30, 1883. Alexander Bell, aged 19, single; instantly killed at Wm. B. Suffern's mine, Coal City. While drawing his sprag to let his coal down, it came over on him.

No. 7—November 19, 1883. Thomas Jones, aged 32, married, leaves a widow and three children; instantly killed at Coal Run Coal Company's mines, Streator. While timbering in the shaft an explosion of fire-damp threw the scaffold on which he was working up the shaft. His head came in contact with the timbers.

No. 8—April 9, 1884. William Bedington, aged 32, married, leaves a widow and four children. While clearing roadway of fallen stone more fell on him, killing him instantly, at Mine No. 2, Braceville.

No. 9—April 11, 1884. Edward Corbine, aged 28, married, leaves a widow and two children. He died on the 20th inst. from injuries received at Mine No. 2, Braceville, by back brushings falling on him.

No. 10—April 17, 1884. George Ferinska, aged 36, single, was killed instantly by stone falling on him while working in his room at the LaSalle mine.

No. 11—May 2, 1884. Ed. Hughes, aged 52, married, leaves a widow and three children; killed by railroad cars on switch track about two hundred feet from shaft of Eureka Coal Company, at Braidwood.

NON-FATAL ACCIDENTS.

AT STREATOR MINES.

No. 1—July 17, 1883. William Hill was cut by a piece of rock.

No. 2—July 23, 1883. John Rishing was cut by pieces of rock while wedging it down.

No. 3—September 16, 1883. James Hawthorn was cut by fall of coal in his room while mining.

No. 4—March 4, 1884. Peter Mathis was severely burned by gas. He had been cautioned about going through a certain trap-door, on account of gas. He laid down his lamp and went inside for some tools. When he came out and took up his lamp enough gas was carried with his clothing to ignite and burn him badly.

No. 5—July 31, 1883. Henry Wood had his leg broken near the ankle, by the falling of a large cross timber.

No. 6—August 1, 1883—Andrew Medars had his leg broken by falling of stone.

No. 7—October 18, 1883. Mechis Miller had his face burned by going into his room, against orders, with naked light.

No. 8—November 15, 1883. Vest Yaster had his face burned by explosion of blast which was thought to have missed fire, and which he had returned to re-light.

No. 9—November 20, 1883. Thomas Richardson, slightly hurt in the back.

No. 10—February 6, 1884. Richard Gebhard, water bailer on night shift, was burned in the face by neglect to shut trap door.

No. 11—January 27, 1884. William Steplins was hurt by the falling of a rock while wedging it down.

No. 12—October 9, 1883. Rudolph Urgan had his leg broken by the falling of coal.

No. 13—August 8, 1883. Anton Shack had his ankle fractured by the falling of a stone.

No. 14—August 24, 1883. P. Marion was slightly hurt by small pieces of rock falling in his room.

No. 15—August 27, 1883. T. Vipan was hurt by cars jumping off the track.

No. 16—August 30, 1883. T. Hardy; cut by fall of timber.

No. 17—September 18, 1883. Max Harbert slightly hurt by the fall of fragment of rock.

No. 18—November 3, 1883. A. Castertro was cut by small pieces of rock while loading car.

No. 19—November 27, 1883. Wm. Bruce was injured by fall of top coal while mining.

No. 20—February 28, 1884. Wm. Hamilton, J. Griffith and T. Ovington were slightly burned by explosion of gas in a road where they had been warned not to go. -

No. 21—March 4, 1884. James Clark was hurt by the falling of rock while timbering.

No. 22—January 11, 1884. James Coughlin was severely injured by falling down the shaft from lower landing; caused by gate being left open.

LA SALLE MINES.

No. 23—August 30, 1883. Mike McDonald was slightly injured by the falling of rock.

BRAIDWOOD MINES.

No. 24—December 24, 1883. Alexander Gilmore, slightly injured by stone falling on him while repairing a road.

No. 25—April 5, 1884. Dominic Malano, slightly injured by falling of stone while at work in the room.

No. 26—January 7, 1884. James McNamara, slightly hurt between two cars while driving.

No. 27—January 7. Louis Heydack had his leg injured by falling of coal.

No. 28—January 29. Wm. Taylor had his leg bruised by slipping on track while cars were being pulled back with tail rope.

No. 29—April 10, 1884. Samuel Gordon, arm bruised by falling of coal.

No. 30—June 10, 1884. Wm. Boustead, thigh broken and foot injured by falling stone while timbering.

No. 31—June 9, 1884. Samuel Boustead, foot bruised by falling stone while loading cars.

No. 32—June 23, 1884. Dominick Perana had his leg and back hurt by falling rock.

No. 33—June 23, 1884. Alex. Davis, while removing timber, had his leg injured by falling rock.

COAL CITY MINES.

No. 34—February 25, 1884. Bissieux Pierre had finished his day's work, and while filling a bag with coal from pillar at bottom of shaft, loose stone fell on him, breaking his leg.

No. 35—March 4, 1884. Farinzo Domenico; while wedging off coal a piece of stone fell on his back, severely injuring his spinal column.

No. 36—March 3. Francisco Miccirio had his leg broken by falling of stone while brushing in his room.

No. 37—March 13, 1884. Martin Veyton, while brushing, had his shoulder bruised by falling stone.

BRACEVILLE MINES.

No. 38—August 15, 1883. Peter Diew had his ankle badly sprained while going down the shaft; lever slipped from engineer's hand, allowing cage to go full speed to the bottom of shaft.

No. 39—October 10, 1883. Robert Gurney had his shoulder blade broken; while driving out, sitting on the coupling between the cars, his light having gone out, and being in the dark, he raised his shoulders too high.

No. 40—October 23, 1883. Clemence Vanderwood had his shoulder blade broken by falling stone at room face.

No. 41—November 1, 1883. Wm. Ainsley had his left leg bruised by falling rock while setting a prop.

No. 42—November 21, 1883. M. J. Holles had his foot hurt by falling rock at face of room.

No. 43—December 11, 1883. J. B. Lewis, while acting as night roadman and brushing a switch, had his foot hurt by falling stone.

No. 44—December 11, 1883. Mathew O'Connell was slightly injured in the back while loading a car with coal, by pieces of stone falling on him out of a slip.

No. 45—December 20, 1883. Thomas Thornton had his foot slightly hurt by fragments of stone falling while brushing.

No. 46—December 21, 1883. Arthur Cook was slightly injured on his leg by a falling stone at the road head.

No. 47—January 10, 1884. David Lloyd had his head slightly hurt by being jammed on a piece of coal, caused by stone falling out of a slip.

No. 48—January 11, 1884. Thomas Reay, while driving from the face, a stone fell and broke his left arm below the elbow.

No. 49—January 15, 1884. Antone Botonskey had his leg broken while pushing an empty car along a cross road by a stone from the side.

No. 50—January 16, 1884. Herman Kline received a serious injury on his arm which was finally amputated, caused by the fall of stone at the face.

No. 51—January 26, 1884. John Viner had his back slightly hurt by stone falling at the face.

No. 52—February 8, 1884. William Purcell was slightly injured in the hip, by falling stone, while sledging coal.

No. 53—March 7, 1884. Julius Toising was slightly hurt in the back by stone falling at the face of the room.

No. 54—May 24, 1884. William Knappe had his collar bone broken by fall of coal and stone.

No. 55—May 30, 1884. William Connolly had his back and leg bruised and partial dislocation of shoulder, by fall of brushings.

No. 56—June 7, 1884. John Johnson, while brushing his place, had his leg dislocated at the knee.

No. 57—June 23, 1884. John S. Kabass had his ankle dislocated by fall of stone at face.

GRUNDY COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.					EMPLOYES.					PRODUCT.						
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd Winter..... Summer.....	No. of other employes, in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year.....	No. of men injured (so as to lose time).....	Price per ton paid for mining. Winter..... Summer.....	No. of tons of coal produced (including nut coal).....	Average value of coal per ton at the mine.....
C. M. & St. P. Braceville Coal Co., No. 2.....	Braceville.....	\$50,000	Shaft. Steam.	115	3 6	2	2	L. W.	2	2 Fan.	370	106	269	25	3	13	\$1 80	199,369	\$1 50
C. M. & St. P. Braceville Coal Co., No. 3.....	Braceville.....	.....	.....	117	6 6	2	2	.....	2	.....	340	100	260	25	1	18	1 00	129,810	1 50
Wilmington Star Mining Co., No. 1.....	Coal City.....	50,000	.....	123	3	3	3	.....	2	2 St.m.	175	65	168	825	1	2	1 00	101,500	1 50
Wilmington Star Mining Co., No. 2.....	Coal City.....	45,000	.....	115	3	3	3	.....	2	2 St.m.	85	20	224	175	1	1	1 00	17,300	1 50
Wilmington Star Mining Co., No. 3.....	Bruidwood.....	25,000	.....	105	3	3	3	.....	2	2 Fan.	200	225	260	140	1	1	1 00	50,559	1 50
Wilmington Star Mining Co., No. 4.....	Coal City.....	50,000	Shaft. Steam.	103	3	3	3	.....	2	2 St.m.	85	14	110	45	1	1	1 00	6,000	1 50
Wilmington Star Mining Co., No. 5.....	Gardner.....	35,000	.....	183	3	3	3	.....	2	2 Fan.	75	23	200	340	1	1	1 00	24,000	1 50
Wilmington Star Mining Co., No. 6.....	Bruidwood.....	25,000	.....	127	3	3	3	.....	2	2 St.m.	125	33	210	135	1	1	1 00	38,310	1 50
Wilmington Star Mining Co., No. 7.....	Coal City.....	25,000	.....	110	3	3	3	.....	2	2 Fan.	60	8	222	75	1	1	1 00	41,546	1 50
Wilmington Star Mining Co., No. 8.....	Bruidwood.....	25,000	.....	107	3	3	3	.....	2	2 Fan.	40	29	202	48	1	1	1 00	26,000	1 50
Wilmington Star Mining Co., No. 9.....	Morris.....	6,000	.....	40	2 8	2	2	.....	2	2 St.m.	10	7	193	.....	.....	1 12	12,000	2 00	
Wilmington Star Mining Co., No. 10.....	Morris.....	1,000	Horse	43	2 3	2	2	R. P.	2	2 Fur.	10	3	240	.....	.....	1 18	2,000	2 00	
H. Burrell.....	Morris.....	14,000	.....	45	2 3	2	2	.....	2	2 Fur.	7	3	253	.....	.....	1 10	6,300	2 00	
Alex. Teller.....	.....	12,000	.....	40	2 3	2	2	.....	2	2 Fur.	5	2	200	.....	.....	1 10	7,000	2 00	
James Heather.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	Totals.....	\$324,600	.....	.....	.....	.....	.....	.....	.....	.....	1,362	485	3,085	1,333	8	36	95% \$1 05% 95%	719,234	\$1 47

NOTE.—In addition to the above, there are 15 smaller mines, which are worked about 6 months in the year, and average 2½ men per mine, including the owners, and have produced an aggregate of 3,000 tons.

KANKAKEE COUNTY—1884.

[illegible]

LIVINGSTON COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYER.				PRODUCT.								
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet	Thickness of coal—feet and inches	Geological No. of seam.	Long-wall, or pillar and room workings.	No. of places of egress	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd	No. of other employees, in and about mine.	No. of days worked during the year.	No. of kegs of powder used during the year.	No. men killed during year	No. of men injured (so as to lose time)	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.
										Winter	Summer.								
Star Coal Co.	Streator	\$25,000	Shaft.	Steam	72	5	7	P	2	Fan.	140	20	296	75	2	2	\$0 85	77,555	\$1 50
Coal Run Coal Co	"	25,000	"	"	60	4 1/2	5	"	2	Fan.	50	20	225	53	..	..	85	46,000	1 40
Walton Bros	Fairbury	30,000	"	"	130	5	5	"	2	Fur.	40	5	190	700	..	..	95	23,400	1 50
Porter, Wager & Co.	"	10,000	"	"	160	4 1/2	7	"	2	"	10	4	185	530	..	..	96	17,000	1 50
Ed Cope form y McMan	Streator	4,000	"	"	55	4 1/2	7	"	2	"	7	3	200	47	..	..	90	11,000	1 65
Jacob Moon	Streator	2,000	"	"	75	4 1/2	7	"	2	"	10	3	125	10	..	..	90	1,500	1 75
Alex Helm.	Streator	5,000	"	"	85	4 1/2	7	"	2	"	25	6	180	60	..	..	90	10,000	1 65
James Kerr	"	2,000	"	"	85	4 1/2	7	"	2	"	3	1	165	35	..	..	90	7,000	1 60
John Williams	"	1,400	"	"	54	5	7	"	1	"	6	1	120	7	..	..	90	1,500	1 75
Thos. Edwards	"	1,800	"	"	57	5	7	"	1	"	0	1	125	9	..	..	90	1,800	1 75
J. Fairbairns.	"	2,000	Drift.	"	55	5	7	"	1	"	0	1	90	4	..	..	90	610	1 75
Richard Evans.	"	3,000	Shaft.	"	40	4 1/2	7	"	2	"	12	2	190	14	..	..	90	3,700	1 75
Totals.		\$111,200									281	68	2,031	1,544	2	2	\$0 81 1/2	301,085	\$1 50 1/2

Pontiac shaft abandoned.

LA SALLE COUNTY—1884.

COAL MINES AND MINERS OF ILLINOIS.

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Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.					EMPLOYES.						PRODUCT.					
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.	Geological No. of seam....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise.....	Number of miners employ'd Summer..... Winter.....	No. of other employes, in and about the mine	No. of days worked during the year.....	No. of kegs of powder used during the year	No. men killed during year	No. of men injured (so as to lose time).	Price per ton paid for mining. Summer..... Winter.....	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....
C., W. & V. Coal Co.....	Streator.....	150,000	Shaft.	Steam.	110	5½	7	R. P.	3	Fan.	300	124	248	1,702	..	4	\$0 75	259,746	\$1 40
Mathiessen & Hegler Zinc Co.....	LaSalle.....	50,000	..	..	85	5½	7	..	..	..	150	156	235	1,056	..	9	..	158,708	..
James Cahill.....	Peru.....	50,000	..	..	350	5	5	..	2	..	50	35	310	2,700	..	1	60	78,000	1 55
Streator Coal Co. No. 1..	Streator.....	75,000	..	..	330	3½	2	L. W. P.	2	..	150	39	274	..	..	..	90	79,431	1 40
LaSalle Co. C. C. Co. No. 2..	LaSalle.....	100,000	..	..	84	5½	7	R. P.	3	St'm.	125	35	171	360	..	6	85	56,000	1 40
Ill. Valley Coal Co. No. 1.	LaSalle.....	200,000	..	..	55	4½	2	L. W.	2	..	..	20	100	125	..	..	85	21,000	1 52
Oglesby Coal Co. No. 1..	Oglesby	185,000	..	..	370	3½	2	..	2	..	180	23	166	..	1	..	95	60,333	1 52
Union Coal Co.....	LaSalle.....	50,000	..	..	320	3½	2	..	2	..	120	23	166	12	..	..	95	23,219	1 52
Caledonia Coal Co.....	LaSalle.....	50,000	..	..	430	..	2	..	2	..	135	68	138	..	..	..	..	49,200	1 52
Coal Run Coal Co.....	Streator.....	50,000	..	..	420	..	2	L. W. P.	2	..	50	20	88	..	..	..	95	12,800	1 52
River Bank Coal Co.....	..	30,000	..	..	460	..	2	R. P.	2	Fan.	110	34	134	..	..	..	95	47,470	1 52
Fred W. Eades.....	..	12,000	..	Horse.	276	5	1	R. P.	2	..	159	120	150	1,058	..	1	90	56,415	1 45
			..	..	565	5½	7	R. P.	2	Fan.	..	20	200	480	..	..	85	8,000	..
			..	..	80	5½	7	L. W. P.	1	..	50	6	75	10	..	..	85	55,000	2 00
			..	..	185	2	2	R. P.	2	St'm.	16	9	200	220	..	..	85	30,000	1 40
			..	..	74	5	7	R. P.	3	Fur.	60	5	160	30	..	..	85	8,000	1 65
			..	..	56	5½	7	..	..	..	10	..	160	..	..	..	..	..	..

* Nineteen mining machines in use.
 † Ten mining machines in use.
 ‡ Formerly Mitchell & Duncan.

STATISTICS OF LABOR.

LaSalle County—Continued.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYEES.				PRODUCT.					
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam.....	Long-wall, or pillar and room workings.....	No. places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd Winter..... Summer.....	No. of other employes, in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year.....	No. of men injured (so as to lose time).....	Price per ton paid for mining. Winter..... Summer.....	No. of tons of coal produced (including nut coal.).....	Average value of coal per ton at the mine.....
Lukins & Cavanaugh.....	Streator.....	2,000	Drift..	Horse..	5	4½	7	R. P.	3	Nat..	6	4	263	5	0	..	\$0 80	9,000	\$1 45
Floyd Bussard.....	..	800	..	..	..	4½	7	..	3	Fur..	0	1	123	0	0	..	90	1,000	1 75
Robert Fairlaln.....	..	600	..	..	..	4½	..	..	2	..	0	1	160	0	0	..	90	2,000	1 40
T. Mackey.....	..	200	..	..	..	4½	..	..	2	..	..	1	145	..	..	..	90	1,800	1 75
Hive & Robertson.....	..	1,500	Shaft..	..	47	4½	..	..	2	..	18	2	150	53	..	..	90	4,360	1 75
Joseph Crew.....	..	1,800	Drift..	..	40	4½	..	..	2	..	16	2	230	60	..	..	90	5,400	1 65
T. Howard.....	..	1,000	..	..	63	5	..	..	2	St'm.	0	1	125	30	..	..	90	2,800	1 75
Burgess & Courtney.....	..	1,600	Shaft..	..	65	5	..	..	1	..	0	1	100	16	..	..	90	700	1 75
Sarnberger Bros.....	..	1,700	..	..	65	5	..	R. P.	2	Fur..	..	1	90	4	..	..	90	650	1 75
S. McClairy.....	..	800	Slope..	..	16	8½	..	..	..	..	..	1	93	0	..	..	90	560	1 60
J. White.....	..	600	..	..	16	10	..	..	..	..	..	1	85	3	..	..	90	625	1 60
J. Haldrige.....	Lowell.....	1,200	Shaft..	..	45	3	2	..	1	..	0	1	95	3	..	..	1 20	530	2 00
J. Clark.....	..	500	Drift..	..	..	3	2	..	1	..	0	1	230	0	..	..	1 20	670	2 00
Philip Shelton.....	..	6,000	Shaft..	Steam.	127	3	2	L. W.	2	Fur..	7	3	240	0	..	..	1 08	7,785	2 00
Seneca Coal Mining Co.	Seneca.....	10,000	..	..	127	3	2	..	2	..	16	6	..	..	..	..	98	12,869	1 50
Mitchell & Jackson.....	Marselles.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	98	9,630	1 75
Totals.....	..	\$1,031,800	..	..	..	..	..	..	..	..	1,720	774	5,082	7,924	2	21	\$0 86 \$0 92	1,064,384	\$1.62½

WILL COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYEES.				PRODUCT.		
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine .....
										Winter			
										Summer.....			
											No. of men injured (so as to lose time).....		
											No. men killed during year.....		
											No. of kegs of powder used during the year.....		
											No. of days worked during the year.....		
											No. of other employes in and about mine.....		
										Winter			
										Summer.....			

* Abandoned.
+ Sold to Albright Co.

RECAPITULATION BY COUNTIES.

Counties.	Capital em- ployed.	Acreage.....	No. of mines.....	No. of mines shipping coal....	No. of mines, local.....	Kinds of power employed	Kinds of openings.	Modes of working				No. of miners and other employees.	Average No. of days worked ..				No. of kegs of powder used....	No. of men killed.....	No. of men injured so as to lose time.....	Average price per ton for mining.		No. of tons of coal produced, including nut.....	Average price of coal per ton at the mines.....	No. of mines with escapement shaft.	No. of mines without escape- ment shaft.....	Kinds of power used for ventil- lation.													
								Double entry	Single entry.	Long wall...	Pillar and room..		Miners, summer ..	Miners, winter	Other em- ployes.....																								
Grundy.....	\$324,600	6,560	29	..	..	..	..	18	11	18	..	1,382	1,804	485	220.3	1,333	8	35	\$0	\$1 05½	713,234	\$1 47	..	..	8	1	2	13					
Kankakee...	70,000	960	2	..	..	..	..	2	2	..	..	225	300	68	155	..	..	1	1 00	1 50	63,000	1 50	1	..	1	1	6	6			
Livingston..	111,200	1,692	12	..	..	..	..	8	4	..	..	281	473	68	169.3	1,541	..	..	91½	1 50½	201,095	1 50½	11	1	2	10	..	..									
LaSalle.	1,031,800	12,826	33	..	..	..	..	27	15	22	..	1,720	2,129	774	164.	7,924	2	21	92	1 62½	1,064,334	1 62½	29	4	7	12	10	13							
Will.....	153,000	1,760	8	..	..	..	..	..	8	..	..	1,099	1,427	485	165.5	75	1	..	1 00	1 50½	465,657	1 50½	8	..	4	3	1	..				
Totals ...	\$1,690,600	23,798	84	..	..	..	..	55	19	52	..	4,707	6,133	1,880	174.8	10,876	11	57	98	1 50½	2,507,370	1 50½	78	6	22	27	18	26							

SECOND DISTRICT.

MR. JOHN S. LORD, *Secretary of the Bureau of Labor Statistics of the State of Illinois:*

SIR—In compliance with section twelve (12) of an act of the General Assembly providing for the health and safety of persons employed in coal mines, in force July 1, 1883, I herewith submit my first annual report of the Second Inspection District, for the year ending June 30, 1884.

The amount of capital employed, number of acres of workable coal, kind of opening and power used at the different mines for raising coal, number of tons of coal produced, with the average value of the same at the mine, number of miners and other employés in and around the mines, with the price per ton paid for mining at the different mines and in the different counties, have been collected and tabulated.

The fatal accidents, with the causes thereof, are given in detail.

Short sketches of the principal mines in the district are given, with the methods of working and ventilating the same. Of the 22 counties in the Second Inspection District, 11 are coal-producing, some of them to a very limited extent. Four counties, namely, Hancock, Schuyler, Warren and Stark, produce less than 20,000 tons annually, with no prospect of improvement in the near future.

	Tons.
Total production reported for 1883.....	1,309,322
Deduct error in report from Rock Island county.....	477,800
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Total production for 1883.....	831,522
Total production for year ending June 30, 1884	728,146
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Decrease from 1883	103,376
	<hr/>
Number of employés—miners.....	3,003
Number of other employés in and around the mines.....	613
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Total number of employés.....	3,616
	<hr/>

Number of fatal accidents.....	6
Number of accidents—non-fatal.....	19
	<hr/>
Total number of accidents.....	25
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Number of employés to each fatal accident.....	602
Number of employés to each non-fatal accident.....	190
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Number of tons of coal produced for each fatal accident....	121,357
Number of tons of coal produced for each non-fatal accident.	38,323
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The two hundred and sixty-four mines found in the second district, are scattered over an area of about four thousand five hundred square miles.

The larger mines have been visited from two to four times during the year. The small mines once; many of the latter were closed for the summer when visited; in such cases a thorough inspection was not made. In McDonough county the small mines outside of Colchester, have been under the inspection of Mr. Thomas Richards, of Colchester, county inspector. The same is true in regard to Bureau and Henry counties; in the former I have had the able co-operation of Mr. Fryar Jobling, of Tiskilwa, and the assistance of Mr. Isaac Pyle, of Kewanee, in the latter.

Very respectfully,

THOMAS HUDSON,
Inspector 2d District.

FATAL ACCIDENTS.

Accident No. 1.—September 29, 1883. Matthew Proud, a miner, aged 39 years; married; leaves a widow and one child; was killed instantly by a fall of roof, in Duffield Bros.' mine, located at Abingdon, Knox county. The mine is a new one. The shaft had just been completed. Proud was engaged cutting a ditch from the sump at the bottom of the shaft, to the face of the main entry, when a large mass of soap-stone fell from the roof, killing him instantly.

Accident No. 2.—November 16, 1883. George Heaton, a miner, aged 38 years; married; leaves a widow and six children; killed by a fall of roof in the face of his working-room in McIntosh's mine, located at Colchester, McDonough county.

Accident No. 3.—December 23, 1883. Henry McArdle, driver, aged 17 years; single; was killed by being caught between the top of the cage and the top landing, at Cable's shaft, located at Cable, Mercer county. This accident happened about 15 minutes before 7 o'clock in the morning, while the miners were being lowered into the mine to commence work for the day. It has become a custom at this shaft to fasten the stops (on which the cage rests) back as soon as

they are done hoisting coal at night, and the stops are not let out again until coal hoisting commences again in the morning. This custom arises from the fact that the miners go down the shaft at all times in the morning, and as no one is there but the night engineer, it is necessary to have the stops out to let the miners down. On the morning in question, the signal wire, which runs from the pit-head to the engine-room, broke, and the pit-head man told the miners "*not to get on the cage until the signal wire was connected.*" The break in the wire occurred in the engine-room, close to the bell, just over the engineer's head. The pit-head man went to the engine-room to connect the wire, and the engineer left his engine, got a small step-ladder, and went to help him. Through some mistake, the miners waiting to descend thought that all was ready, and rushed on the cage. When about ten of them had got on, their combined weight overcame the weight of the empty cage at the bottom of the shaft, and they started down. McArdle was caught in the act of stepping on the cage, before the engineer could jump from the ladder and stop his engine. At first it was thought that McArdle was not seriously injured. He was taken home, and a surgeon called, but he died about eight hours after the accident, from internal injuries.

Accident No. 4.—April 29, 1884. Charles Stoltonberg, a miner, aged 33 years; married; leaves a widow and two children; was killed by a fall of roof in the face of his working-room, in Shaft No. 6, operated by the Lathrop Coal and Mining Co., located at Kewanee, Henry county. Stoltonberg, in company with his partner, Gus Grotha, were engaged in timbering, and making their room secure, when a large mass, weighing about three tons, fell from the roof, killing Stoltonberg instantly, and injuring Grotha.

Accident No. 5.—April 30, 1884. William Carroll, a miner, aged 29 years; married; leaves a widow and one child; was killed by a loose rock falling on him in Thomas Greenbank's mine, located at Colchester, McDonough county. Carroll, in partnership with Thomas Greenbank, was engaged in driving an entry across old rooms, for the purpose of reaching some old pillars of solid coal that had been left. They had passed through two old rooms, and were going across the third, when Carroll, in opposition to the advice of his partner, ventured under a dangerous-looking rock. It came down on him, squeezing him into the slack and mud beneath. Greenbank was unable to remove the rock, and had to go for assistance, and before Carroll could be extricated life was extinct.

Accident No. 6.—June 6, 1884. John McCann, a pusher, aged 34 years; married; leaves a widow and one child; was instantly killed by a fall of roof, on the main entry running east, at the inside end of the shaft parting, about sixty feet from the bottom of the shaft operated by the Wenona Coal Company, located at Wenona, Marshall county. The shaft parting had been timbered securely, to the point where the accident occurred, to a height of seven feet, and at that point an offset less than five feet in height was left untimbered. The roof had been examined some time before the accident, and was found solid and considered safe. This mine is worked by the long-wall system. In opening out the mine, instead of leaving

shaft-pillars, all the coal is removed from around the bottom of the shaft, and a continual "pinching" and "squeezing" is taking place in consequence. By this squeezing, the rock became loose and fell. Had the customary precautions been taken, and the entry been securely timbered, this accident would not have occurred.

NON-FATAL ACCIDENTS.

Of the nineteen accidents of this class, fourteen of them have been caused by falls of coal or roof, and have occurred in the rooms of the men injured. Two have been caused by the victims being caught with pit-cars, one by machinery, and two by a premature blast of powder. These accidents generally may be termed slight, as all the men injured have resumed work, with the exception of William McGill, who was very seriously burned by a premature blast. He is at present in a hospital in Davenport. Fears are entertained that he may lose his eye-sight, but the chances are favorable for his coming out all right.

While it may be safely assumed there will be accidents as long as we continue to have coal mines, it is also true that the number of accidents may be greatly curtailed by greater caution being used by the men who are most liable to injury, namely, the miners themselves.

Of the six fatal and nineteen non-fatal accidents, three of the former and fourteen of the latter may be directly traced to a daring disregard of danger on the part of the men killed and injured.

With the greatest possible caution used on the part of the miners, and a strict enforcement of the mining law, accidents will be reduced to a minimum.

BUREAU COUNTY.

The most important mine in this county is known as Locey's mine, located at Loceyville on the C. R. I. & P. R. R., about six miles north from Peru. The shaft is 300 feet in depth, the seam is No. 2, of good quality and three feet thick, and the coal is mined on the long-wall system. The machinery, engine house and boiler sheds are old and worn, but it is likely that a new engine house will be built of brick and double engines put in soon. The shaft is too small for the capacity of the mine. The workings are ventilated by fan of the Guibal pattern, but the up-cast or air chamber is far too small for the capacity of the fan. An escapement has been sunk and ladders put in during the year. The fan will be moved and placed over the escape shaft, when the ventilation will be good. Covers have been put on the cages and a brake on the drum; safety catches have been tried but failed to work satisfactorily owing to the size and construction of the cages.

To make this a mine of the first class it will be necessary to enlarge the shaft from top to bottom, build new engine and boiler rooms and put in new machinery. The mine is under the management of Edward Lewis.

SHEFFIELD.

The principal mine at this point is operated by the Sheffield Mining Company. The entire product of the mine is used to coal locomotives on the C. R. I. & P. R. R. The seam worked is No. 6. The mine is ventilated by a furnace, and the condition of the mine generally is good. A. W. Boydon, Superintendent; Robert Jones, Pit-boss.

There are five or six other shafts and slopes in and around Sheffield, and two at Mineral, all supplying local custom. All the coal mined is from seam No. 6.

The five mines at Coal Hollow, five miles north of Princeton, one at Nigger Creek or Hollowayville, and one at Spring Creek, are local shafts and in fair condition.

Four escapements have been completed in this county during the year, namely: Locey's, at Loceyville; Lloyd and Higby's, at Sheffield; John Hill's, at Coal Hollow, and W. H. Forrest's, at Mineral; and four others are at present being constructed, namely: by Seaton Bros., Nigger Creek; Fletcher Bros., Coal Hollow; Heathcock, Coal Hollow, and Weissenburger, Spring Creek.

The coal produced at Spring Creek is from seam No. 5, that at Nigger Creek from seam No. 2; the latter is mined on the long-wall system.

Bureau is coming to the front as a coal producing county, and will at no distant date rival her big neighbor LaSalle. The Spring Valley Coal Company, with a capital stock of \$1,500,000, control 9,000 acres of coal land in Bureau county. It is the intention of the company to sink eight shafts, with a capacity of about 800 tons per day each. Shaft No. 1 will reach coal about August 1, and mining will be commenced September 1, 1884. The other seven shafts will be pushed forward as rapidly as possible until all are completed.

The shafts will be 17 feet long by 8½ feet wide, with one-third partitioned off for upcast, which will give an area of about 50 square feet. The shafts will be sunk one mile apart, with an escapement between, half a mile from each. The machinery will be of the most approved kind, double engines, with cylinders 14x24. Steel ropes 1½ inches in diameter. The mines will be ventilated with the "Champion" fan. The average depth of the shafts will be about 425 feet. The whole will be under the management of Charles J. Devlin, of Peru. The officers of the company are:

E. N. Saunders, President.

Chas. J. Devlin, Vice-President and General Manager.

E. V. Holcomb, Secretary.

M. H. Taylor, Treasurer.

General offices in Chicago.

Shaft No. 1 is located about four miles north of Peru. A switch has been laid from the C. R. I. & P. R. R. to the mine. A town has been located near the mines and will be known in the future by the name of Devlin City. The coal mined will be from seam No. 2, which at this point is of good quality and over three feet thick. The mining will be on the long-wall principle.

HENRY COUNTY.

KEWANEE.

The most important mines in this county are those owned and operated by the Lathrop Coal and Mining Company, located at Kewanee. Shaft No. 6 is ventilated by a furnace; the double-entry system prevails; air crossings are used when necessary; the coal is hauled to the shaft by the tail-rope system and the mine generally is in fair condition.

Shaft No. 1, operated by the same company, is ventilated by a fan of the Guibal kind, used as a "blower," being placed on the downcast shaft.

The Harrison mining machines have been in use in this mine during part of the year, but are not being used at present, the mine being closed through depression in the coal trade. The product of the machines has not been tabulated, as their use was purely for experimental purposes. The management may, however, conclude to use the machines exclusively in the near future.

A. B. Ashley, Superintendent.

Jacob Fleming, Underground Manager.

CLEVELAND.

The mine at this place is owned and operated by Taylor Williams, and is in fair condition. Ventilated by a fan, of the Guibal type. The coal is worked by double entry, and very little solid coal remains. The most of the work is drawing pillars.

A. S. Cox, Superintendent; John Milam, Pit-boss.

BRIAR BLUFF.

The mine at this place is owned and operated by Perry & Co., of Geneseo. The mine was closed February 15, owing to continued depression in the coal trade.

GALVA.

The mines at this place are operated by the Herdien Coal Company. Shaft No. 1 was worked out and abandoned, February 15, 1884.

Shafts No. 3, No. 4, and the local shaft, are all connected under ground. Shafts No. 2 and No. 5 (No. 5 was sunk during the summer) are also connected underneath. Heretofore no mechanical means have been used for ventilating the mines, except the exhaust steam from the pumps, and as a matter of course the miners have suffered from bad air during the summer months. In the month of June, furnaces have been built in shaft No. 4 and the local shaft, with good results, and furnaces will be added to the other shafts when required. The coal is worked by double entry. The airways are short, and small furnaces give abundance of air. Brakes have been put on the drums, and other little improvements made during the year.

Andrew Sunquist, Pit-boss and General Manager.

Another shaft has been sunk at this place during the summer, by the Galva Union Coal Company. It will be worked on the co-operative plan, and will be ready for business during the fall.

George Palmer, Superintendent.

CAMBRIDGE.

The mine at this place is operated by Goodrich & Burton, and supplies the local trade only. The shaft is ninety feet deep, the coal three feet thick, and the seam is No. 3 of the Illinois section. The shaft is single, only one cage being used. The coal is raised by a "friction" contrivance, which at best can not be considered the safest method for hoisting and lowering men. A link will, however, be put in, making the engine reversible, and cog gearing added.

James Williams, Manager.

ATKINSON.

There are also small local custom mines at Atkinson and Kewanee, but like other local mines, they do not do much, especially in summer. Henry Boyd, Thomas E. Earl and Thomas France have opened new mines at Kewanee during the year, and one operated by Joseph Price, at the same place, has been abandoned. Bernard Kirley, William Stanley, William Bates, John Atkinson and William Grice, have completed escapements during the year.

HANCOCK COUNTY.

AUGUSTA.

The only mines in this county are located at Augusta, on the Quincy branch of the C., B. and Q. Railroad, and are operated on a very small scale. What promised to be the most important mine is owned and operated by Crain & Williamson. A shaft was sunk, and a railroad switch put in during the summer of 1884, but the roof was found to be too soft, and it is quite likely the shaft will be abandoned. A new shaft has been sunk by Newcomb & Compton, and will be operated the coming fall and winter. Cages have heretofore been unknown at this place. Newcomb & Compton, and Samuel Jones, will put them in their respective shafts at once. At the other places the shafts are too small to admit of cages, and will likely have to be finished on the old plan. As new shafts are sunk, however, cages will be put in. The operators take kindly to the mining law, and are quite willing to comply with the provisions thereof.

The general appearance of the coal, the overlying and underlying strata, and their close resemblance to those of the Colchester seam, leads to the conclusion that this coal is seam No. 2. Two escapements have been completed during the year,—one at Dunant's mine, and one at Samuel Jones'.

KNOX COUNTY.

The forty-six mines in this county are scattered promiscuously over the whole length and breadth of the twenty townships which go to make up the important county of Knox. It would be very difficult to locate at any point in this county which would be more than four miles from a "coal bank."

The coal produced is for local custom only. There is no railroad switch to any mine in this county. The most extensive mine is owned and operated by George Clifford, about two miles north-east of Oneida, the annual production being about 6,000 tons. Duffield Brothers, of Abingdon, sunk a shaft at that place during the summer of 1883. Seam No. 2, about twenty-two inches thick, was reached at a depth of eighty-five feet. The engine and boiler were placed close to the shaft, and all inclosed under one roof. Not having an escapement, it was considered unsafe, and rather than sink an escapement at that time, the owners concluded to close the mine, which was done January 15, 1884, with the understanding that when the mine is opened again, the first work done will be the sinking of an escapement. The coal is underlaid with fire-clay of good quality, well adapted for the manufacture of tile. Two feet of this clay will be taken out with the coal, and a tile factory added to the mine, both of which will probably be in operation during the fall of 1884.

In Rio township a mine is owned by H. Gilchrist & Co., of Rapids City, but it is rented from year to year, and operated by different parties. Like all, or nearly all, mines operated in this manner, the condition of the mine gets worse and worse from year to year, until it is abandoned, with one-half of the coal left and totally lost. The coal is raised by steam power. This seam is about six feet thick in the center of the "basin," and gets thinner towards the edge. The extent of the basin is not more than five or six acres, with about one-half of it worked out. The seam is probably No. 1.

Three mines are located at Soperville, about six miles north of Galesburg. A good business is done in winter, but little or nothing during the summer months. The seam is No. 1.

There are also mines at Knoxville, Wataga, Yates City, Maquon, Truro and Victoria, employing from one to five men in each mine in winter. In summer they are generally shut down, or won't average more than one man to each mine.

During the year three escapements have been completed at Knoxville, one at Maquon and one at Yates City.

In tabulating the geological number of the seams, the opinion of Mr. Fred. R. Jelliff, of Galesburg, (late County Inspector of Mines,) has been followed, he having devoted some time to the study of the geology of Knox county.

McDONOUGH COUNTY.

COLCHESTER.

The principal mines in this county are located at Colchester, and operated by the Quincy Coal Company, and are as a rule in good condition. The coal is worked by double-entry. The mines are ventilated by furnace; the air-ways are comparatively short, rarely more than five acres of coal being taken out with one shaft. The company generally has from four to six shafts in operation at one time. It is quite common to sink two shafts every year and abandon a corresponding number. Two shafts are usually sunk from three hundred to five hundred feet apart, and connected underneath, and about ten acres of coal taken out with the two shafts and then they are abandoned. It is considered cheaper to sink shafts than to haul the coal long distances underground. The cages are all supplied with safety catches and iron covers, and the drums are supplied with brakes. The machinery generally is in good condition.

Thomas Tirrill, Manager.

William Egerton.

The next mine of importance is owned and operated by William Egerton, ventilated by a furnace, and worked on the same principle as the Quincy Coal Company's mines. The amount of air passing a given point is generally up to the standard, but the distribution of the air has been defective in the past, and complaints have been made, especially during the summer months. Some improvements have been made with good results, but there is plenty room for more. The machinery, ropes, cages, etc., are in good condition.

William Egerton, Superintendent.

The mine operated by the Colchester Coal Company has been abandoned. A new shaft is being sunk, which will be operated during the fall and winter.

Thomas Wilson & Co.

The mine operated by Thomas Wilson & Co. is ventilated by furnace and worked on the double-entry plan. The coal is raised by horse power, the cages are supplied with catches, and the mine generally is in good condition.

Thomas Wilson, Manager.

TENNESSEE.

The mine at this place is operated by A. Newland. It has been sunk during the year and is in fair condition. A tile factory has been added and most of the coal mined will be used in the manufacture of tile.

A. Newland, Superintendent; Eli Hilliard, Pit-boss.

"Country banks" or local custom mines are scattered all over the county, little or nothing being done in them during the summer months.

The following improvements have been made during the year:

Quincy Coal Company—Escapement at shaft No. 20, and brake on drum at shaft No. 21.

William Egerton's mine—Covers on cages and brake on drums.

Prairie City Coal and Tile Company—Escapement.

Tennessee Coal and Tile Company—Escapement.

Thomas Wilson & Co.—Escapement shaft, furnace and catches on cages.

Mrs. Dall—Escapement shaft.

James Roberts & Son—Escapement shaft.

MERCER COUNTY.

CABLE.

The principal mines in this county are located at Cable, and operated by the Coal Valley Coal Company. The mines operated by said company consist of a shaft and a slope. At the shaft the coal is raised by a pair of engines seventy-five horse power each. The mine is ventilated by a fan of the Guibal type eight feet in diameter. The mine is worked on the double-entry plan. The coal is hauled to the shaft by the tail-rope system, two engine planes being in operation. The entries are driven from eight to ten feet wide, the roof is solid and of the very best kind for mining purposes, no timber being required in the entries. The coal mined is from seam No. 1, and will average four and a half feet in thickness at this mine.

The prices paid for mining are comparatively higher at these mines than in any other part of the district, and it is the only place where the miners are paid for nut coal and slack. For every ton of lump coal mined, the miner receives 10 cents for nut coal and 5 cents for slack— $5c + 10c + 93\frac{1}{2}c = \1.08 for each ton of coal mined, which makes it the best paid and most desirable work in the district.

The Harrison mining machines have been in use at this place, but they were taken out over a year ago and have not been used since. It is not known at present whether they will be used again or not.

The slope, operated by the same company, has been closed during the summer, through depression in trade, but it will be opened again in the fall if the state of trade demands it. The slope has been ventilated by a furnace, but a fan will be put in shortly.

Taking the cable mines as a whole, they are without exception the best equipped and best ordered mines in the Second district.

No strikes or other labor troubles have occurred under this company for twenty-one years. Robert Lee, Superintendent; William Haddock, Pit-boss at the shaft; Robert Haddock, Pit-boss at the slope.

The next mine of importance at this place is owned and operated by Richard B. Ellis. His old slope has been worked out and abandoned and a new one opened. It is the intention to haul the coal out of the mine by means of a small locomotive. R. B. Ellis, Superintendent.

A small mine is also operated at this place by Charles Peterson. The coal produced is used for local custom only. The other mines in this county are located at Viola, Pre-emption, Aledo, Griffin, New Windsor and Millersburg, and are all local custom mines.

One escapement has been completed during the year, by Edward Boden, at Pre-emption, and one will be finished September 1, by William Blaine, at Viola.

MARSHALL COUNTY.

WENONA.

The principal mine in this county is located at Wenona, on the Illinois Central railroad, and is operated by the Wenona Coal Company. The mine is comparatively new. It went into operation in the summer of 1883. Seam No. 2 of the Illinois section, 2 feet and 8 inches in thickness, was reached at a depth of 555 feet from the surface. The coal is raised by a pair of 185-horse-power engines, working on first motion. The cylinders are 13 inches in diameter and 4 feet long; diameter of the drum 5 feet; the cage speed when hoisting coal is about 1,150 feet per minute. The steam is supplied from a battery of four cylindrical boilers, 42 inches in diameter and 24 feet long. The coal is mined on the long-wall system. The present out-put is about 100 tons per day. This will be increased as the working face is extended until an out-put of about 500 tons per day is reached, which will probably be the maximum capacity of the mine. The only ventilating apparatus used at present is the exhaust from a steam pump at the shaft bottom, which, at best, is very unsatisfactory. The sinking of an escapement shaft, 8 feet by 5, was commenced May 1, 1884, and will be continued until completed, which will probably be in December, 1884, or early in January, 1885. Then a ventilating fan will be added to make the equipment complete. The mine is supplied with a steam fire-pump and hose capable of throwing a stream of water onto the tower in case of fire.

The coal is of good quality. The following is an analysis made at the Illinois Industrial University, School of Chemistry, Champaign, Illinois, January 19, 1884:

Specific gravity.....	1.246.
Volatile combustible matter.....	43.66
Fixed combustible matter.....	48.66
Total combustible matter	92.32
Impurities—water.....	4.75
“ —ashes.....	2.93
Total impurities	7.68
	100.00

WM. McMURTRIE, *Professor of Chemistry.*
Illinois Industrial University, Champaign.

The miners at this place are the only body of men in the 'second district who have taken advantage of section 3 of "An act to provide for the weighing of coal at the mines," and appointed a check-weighman. E. L. Monser, Superintendent; John Merlin, Underground Manager.

The other mines in the county are small drifts, with the exception of one shaft, 40 feet deep, three and one-half miles west from Henry, operated by James Thompson. The drifts are located along the face of the bluffs between Henry and Sparland, and supply local trade only. Four escapements have been completed during the year, at Thompson's, Frisby's, Osborne's and McFadden's. In the summer months little or nothing is done. The coal mined is from seam No. 7.

ROCK ISLAND COUNTY.

RAPIDS CITY.

The most important mine in this county is owned and operated by Mr. Taylor Williams, at Rapids City, and at present is the best equipped and best ordered mine in the county. It is ventilated by a double fan on one shaft, like the Champion. The fans and casings, however, are of the Guibal pattern. The mine is quite extensive and considerable skill is required in conducting the air to the face of the workings. The amount of solid coal remaining is very limited. The most of the work at present is "drawing pillars," which, from its very nature, is the most dangerous the miner can be engaged in. It is not likely that this mine will last more than about three years. D. H. Williams, Superintendent; W. A. Griffith, Underground Manager.

The mine at Rapids City, operated by Gilchrist & Co., was worked out and abandoned in December, 1883. The mine at Happy Hollow, operated by Taylor Williams, was worked out and abandoned in March, 1884.

COAL VALLEY.

Two shafts are operated at this place by the Black Diamond Coal Company. The shaft known as the "Black Diamond," is on the Rock Island and Peoria railroad. The other shaft, known as the "Narrow Gauge," is connected with Moline by a narrow gauge railroad, and the coal is taken from the shaft to that city by a small locomotive. The two mines are connected underground and ventilated by a furnace. The single entry system prevails here. It is always unsatisfactory, and in this case very uneconomic. Considerable improvements have been made during the year. New cages have been put in at both shafts, supplied with safety catches. Iron covers have been put on the cages and guards around the shafts, and a steam gauge added to the boiler at the Black Diamond. Richard Battersby, Superintendent; Edwin Twomley, Underground Manager.

There are four or five small drifts in and around Coal Valley. They are working on old pillars left by the Coal Valley Coal Company.

The mine operated by Heagy and Stoddard at Tinkerville, in Hampton township, and the mine operated by Silvis Bros. of the same place, are run on a small scale at present. Their product would be more than doubled, should a railroad come into that coalfield.

A new shaft has been sunk near Bowlesburg, in Moline township, during the year, by the Eureka Coal Company.

One escapement shaft has been completed during the year at Heagy and Stoddard's mine, and safety catches put on the cages. Through some mistake *three* places of egress were reported at this mine last year. All coal mined in this county is from seam No. 1.

STARK COUNTY.

The mines in this county all depend on local trade; most of them are located on the Spoon river, between Wyoming and Modena. One at Bradford, and one on Walnut Creek, in West Jersey township. The coal mined is from seam No. 6, and is of fair quality, but a great deal of coal is wasted by "clay veins" or "horse backs" running through it. The only exception to the above, is the mine found in West Jersey township. According to the "Geology of Stark County" it has been pronounced seam No. 4 of the Illinois section. The coal is about 6 feet thick. The four feet next the bottom, seems to be of first class quality, and is considered the best coal in this part of the country for blacksmith purposes; the upper two feet is of inferior quality, a great many thin slaty streaks or veins running through it. About a foot of coal is left in position to form a roof, the overlying stratum being composed of a soft, rotten soapstone. The coal is underlaid with 18 inches of black slate, the upper 6 inches of it might be called cannel coal, which it resembles very much; it is hard and smooth, and the ordinary tracks are dispensed with in the rooms. The mine is owned and operated by John Catton, West Jersey.

The mines at Bradford are the deepest in the county, being over 100 feet in depth. The one operated by Mathias Oxberger is 130 feet deep, it was stopped January 10, 1884, for the want cages, etc., and bad order generally, and considered unsafe.

Previous to the passage of the mining law of 1883, no cages were used in this county; now, all the shafts are supplied with them and with safety catches also. Four escapements have been completed during the year, namely, James Higby's, Stephenson's and Watson's, and John McCarty's at Wyoming, and Thomas Aitkin's at Bradford, and three more will be completed in August, 1884, namely, John Scott's and G. L. Talbot's at Modena, and William Shaw's at Toulon. Copper tools have also been introduced, and all the principal mines have got them.

SCHUYLER COUNTY.

The principal mine in this county in operation at present is located at Rushville and operated by John Karr. The coal is raised by horse power, and supplies local custom only. The old shaft, operated by Karr has been abandoned. The present one was sunk in the fall of 1883. An escapement will be completed in August, 1884.

Samuel Work & Bro., of Bushnell, commenced operations at Rushville on a large scale in 1883. They had a railway switch put in and a slope opened, but the roof proved unsatisfactory, and after five months' trial they abandoned it. They have been prospecting since at another point, but whether they will sink again or not is at present unknown. The coal mined at this place is from seam No. 5.

Two small mines are in operation at Ray; they are owned and operated by the proprietors of the tile factories, the coal produced being used exclusively for burning tile. The coal is from seam No. 2.

WARREN COUNTY.

The coal produced in this county is used for local custom only. The mines are located at Monmouth, Youngstown, Swan Creek, Roseville, Alexis, and one at Kirkwood. The mines at Alexis are the best in the county, not on account of a better method of mining, but from natural advantages, the seam being thicker and roof better. From the general appearance of the seam at this place, and its close resemblance to the Mercer county mines, it is probable that it is seam No. 1.

The mine at Roseville, owned and operated by John A. Gordon, gives employment to more men than any in the county. The coal and water is raised by steam power, and the coal is worked on the double entry system, but the soft soap-stone roof, and soft fire-clay bottom, and thin seam, all combined, make it impossible to operate those mines on an extensive scale. With the exception of the mines at Alexis, and the one at Roseville, the mines are all alike in this county, and to give a detailed description of each would be superfluous. The operators are also the miners, as a rule. The coal

produced outside of Alexis is probably from seam No. 2. The mines operated by Selkirk & Johnson, three and a half miles northeast from Monmouth, may be seam No. 1; it is quite difficult to determine. One escapement has been completed this year, by William Johnson, Monmouth.

STRIKES.

Kewanee.—Strikes are not of frequent occurrence in the Second District, and are generally of short duration, and, as a rule, do not involve a large number of men. Four have occurred during the year, the first at Kewanee, Henry county. The miners in the employ of the Lathrop Coal and Mining Company had been receiving 80 cents per ton during the summer of 1883. It is customary to make a difference of 10 cents per ton between the summer and winter months. The advance takes place October 1, and the drop in prices April 1. As the miners had been receiving 80 cents per ton during the summer, they naturally expected 90 cents per ton during the winter. The company offered 85 cents. The men held a meeting and demanded 90 cents. The company offered 87½ cents as a compromise, provided the men went to work at once. This was refused by the miners and a strike inaugurated October 1, which lasted one month, at the end of which the miners accepted the company's first offer: namely, 85 cents per ton, and resumed work. About 175 men were involved in this strike.

Wenona.—The second strike occurred at Wenona, Marshall county. The miners had been receiving \$1.15 per ton during the winter. On the 1st of April, 1884, the company came out with a "contract," offering 90 cents per ton for one year. The miners refused to accept either the contract or the 90 cents per ton. They stood out one month, and then acceded to the company's demands and signed the contract.

About 50 men were idle in this strike. It is but justice to the company to state that 90 cents per ton is a little more than is paid at Minonk, and about the same that is paid for LaSalle bottom vein, and they have to compete in open market with those companies.

Galva.—Strike No. 3.—The miners in the employ of the Herdien Company, at Galva, Henry county, came out against a reduction of 7½ cents per ton (from 87½ to 80 cents), May 1. They stood out about three weeks, and then accepted the terms offered by the company. About 80 men involved.

Colchester.—Strike No. 4.—The miners in the employ of the Quincy Coal Company, Colchester, McDonough county, came out against a reduction of 12½ cents per ton, June 1. The miners stood out ten days, and then went to work at the prices proposed by the company. Number of men involved, 150. The customary prices paid for mining at this place, for several years past, have been \$1.50 per ton in winter, and \$1.25 in summer. The reasons for reducing the price of mining, as given by the company, were, that coal is being shipped from Sangamon county and underselling them in Quincy, which they naturally claim as their home market; hence the reduction. It will be seen from the above that the *cause* of the strikes,

in every case, has been the persistent efforts of the operators to force a reduction on the miners, and in every case the operators have been successful.

GENERAL REMARKS.

Considerable difficulty has been experienced in arriving at correct conclusions regarding the number of tons of coal produced, the number of days worked, and number of kegs of powder used, etc., during the year, especially at the smaller mines, as no record of those matters is kept by the operators; the amounts tabulated, however, may be taken as approximately correct.

VENTILATION.

The methods used for ventilating the mines are either by fan or furnace in the larger ones, the fans as a rule giving the best results.

"Natural" ventilation is resorted to by the smaller operators during the winter. Those of them that run their mines during the summer months, either build an open fire on the entry near the bottom of the air-shaft, or place a heating-stove in the bottom of the upcast shaft. In tabulating the appliances for ventilating, all these arrangements have been classed as "Natural Ventilation." They were thought to be too small to be dignified by the name of furnace. The volume of air in circulation in those small mines has not been measured during the year.

The question of ventilation is one of the most difficult the Inspectors have to deal with. The difficulty arises from two causes. The first, and as a rule, the most common cause, is the ignorance of the laws which govern ventilation, displayed by those who have charge of the mines. The second arises from the fact, that many of the mines have been commenced on an incorrect plan, and without any thought of the future in regard to ventilation. When mines are commenced wrong and run so for two or three years or more, it is often difficult and always expensive to put them right. The second cause of the difficulty is traceable to the first. Both arise from ignorance of those subjects which every person who assumes the responsibility of taking charge of a mine, ought to know something about. It remains for the Inspectors to make the best of the mines that are now in operation, and be very careful that the mines opened in the future be commenced on principles that are assumed to be correct.

IMPROVEMENTS.

Many small improvements have been made during the year, old cages have been taken out and new ones put in with safety catches added; new cages have been put in where they were not used heretofore; boiler-iron covers have been put on the cages, and guards placed around the top of the shafts, and brakes put on the winding drums. Some of the mines had the above attachments, or some of them, prior to the passage of the mining law of 1883, but many of them did not. Thirty-three escapements have been completed during the year, and ten more are being constructed at the present time.

COPPER TOOLS.

The law relating to the use of copper tools for blasting purposes has been complied with generally. They have been introduced into many of the smaller mines, and in the large mines at Cable, Rapids City and Cleveland they are now used exclusively. An accident occurred at Cleveland on the 16th of June by which two men were burned (one seriously) by an explosion of powder or premature blast, which could not have occurred if copper tools had been used. This accident gave an impetus to the use of said tools at that mine.

Changes in or additions to the mining law will, in all probability, be suggested from year to year as they become necessary. At the present time no necessity for change or addition presents itself. The law is new and at present experimental; it will be soon enough to impose new restrictions when the law as it now stands has been fully complied with.

It has been suggested that the Inspectors in their annual reports recommend to the Legislature the passage of a law making it obligatory on the part of mine managers to hold "Certificates of Competency." While it may be fairly assumed that the time is coming when such a law will be in force, it is believed that the time has not come yet. A commission has been appointed in the State of Pennsylvania for the purpose of revising the mining law and dealing with other matters pertaining thereto, and among those matters will be the question of certificated managers. The commission is now at work, and it may be well to await their report before moving in that direction in this State.

BUREAU COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.										EMPLOYEES.				PRODUCT.		
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam ...	Long-wall, or pillar and room workings.....	No. of places of egress ...	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	No. of other employes in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year	No. of men injured (so as to lose time.....	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....
									Winter.....	Summer.....									
George H. Locy.....	Loceyville.....	\$125,000	Shaft.	Steam.	300	3	2	L.W.	2	Fan.	61		280				\$0 80	39,000	\$1 65
Seaton Bros.....	Hollowayville.....	8,000	"	"	400	3	2	"	1	Fur'e	10		194				1 00	2,328	2 00
John Hill.....	Princeton...	3,000	"	"	150	4	6	P.R.	2	"	8		180	150			1 00	2,160	1 75
J. Nichols & Sons.....	"	5,000	"	Horse.	150	4	6	"	2	"	2		206	80			1 00	1,452	2 00
A. W. Walton.....	"	5,000	"	"	150	4	6	"	2	"	14		164	143			1 00	3,976	2 00
Fletcher Bros.....	"	5,000	"	"	138	4	6	"	1	"	10		208	208			1 00	2,055	2 00
George Heathcock.....	"	5,000	"	"	200	4	6	"	1	"	6		100	15			1 00	1,050	2 00
Sheffield Coal Co.....	Sheffield.....	70,000	Slope.	"	40	4	6	"	2	"	48		300	120			87	22,400	1 80
James Sprague.....	"	1,500	"	"	40	4	6	"	2	"	9		200				87	1,200	2 00
Peter Duncan.....	"	1,300	Shaft.	"	40	4	6	"	2	Nat'l.	8		200				1 00	1,544	2 00
Lloyd & Higby.....	"	1,200	"	"	40	4	6	"	2	Fur'e	3		306				1 00	1,312	2 00
Lloyd & Hauxwell.....	"	600	Slope.	"	30	4	6	"	2	"	3		288				1 00	1,112	2 00
Wietom & Fleming.....	"	3,500	"	"	80	4	6	"	2	"	8		200	8			87	1,915	2 00
James Wood.....	Buda.....	1,000	Shaft.	"	40	4	6	"	2	"	10		240	4			1 00	1,600	2 00
W. H. Forrest.....	Mineral.....	1,200	"	"	50	4	6	"	2	"	12		250	50			1 00	2,400	2 00
John Vanvelzor.....	"	1,200	"	"	50	4	6	"	2	"	8		200	20			1 00	2,300	2 00
V. H. Weissenburger.....	Peru.....	2,000	"	"	15	5	6	"	1	Nat'l.	3		140	10			1 00	2,700	2 00
Colby & Son.....	Tiskilwa.....	200	Strip.	"	5	3		"		"								60	2 00
Totals.....		\$239,700									144	82	3,656	808	3	\$0 95½	88,564	\$1 53¾	

HENRY COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.					EMPLOYEES.					PRODUCT.							
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and room-workings.	No. of places of egress.	Ventilation, by fan, furnace or otherwise.	Number of miners employed.	No. of other employees in and about mines.	No. of days worked during the year.	No. of kegs of powder used during the year.	No. men killed during year.	No. of men injured (so as to lose time).	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at the mine.	
Lathrop Mining Co. No. 1	Kewanee.	\$100,000	Shaft.	Steam.	100	4	6	P. R.	2	Fan.	10	5	175	10	1	1	\$0 85		10,650	\$1 50
Lathrop Mining Co. No. 6	"	25,000	"	Horse.	100	4	6	"	2	Fur.	17	30	250	17	1	1	\$0 85		53,500	1 50
Barnard Kirley	"	2,000	"	"	42	4	6	"	2	"	5	1	275	5			\$0 85		3,820	1 75
William Stanley	"	1,000	"	"	55	4	6	"	2	"	3	1	260	3			\$0 85		2,800	1 75
William Bates	"	2,000	"	"	55	4	6	"	2	"	3	1	260	3			\$0 85		3,505	1 50
Joseph Price	"	1,000	"	"	55	4	6	"	2	"	3	1	125	125			\$0 85		1,700	1 50
Henry Boyd	"	1,000	Drift.	Hand.	60	4	6	"	2	"	3	1	200	200			\$0 85		1,540	1 75
William Martin	"	1,200	"	"	60	4	6	"	2	"	3	1	200	200			\$0 85		1,540	1 50
Samuel Garland	"	1,000	Slope.	Horse.	30	4	6	"	2	"	3	1	100	100			\$0 85		1,600	1 50
John Atkinson	"	500	Drift.	Hand.	20	4	6	"	2	"	2	1	200	200			\$0 85		1,200	1 50
William Grice	"	500	"	"	25	4	6	"	2	"	2	1	50	50			\$0 85		1,200	1 75
Thomas E. Earl	"	1,000	Shaft.	Horse	40	4	6	"	2	"	6	1	100	100			\$0 85		1,200	1 75
Thomas France	"	1,000	"	"	40	4	6	"	2	"	6	1	120	120			\$0 85		960	1 50
Taylor Williams	Cleveland.	50,000	Shaft.	Steam.	100	4	6	"	2	Fan.	65	20	250	650	2	2	\$0 85		33,500	2 00
Perry & Co.	Briar Bluff	100,000	Slope	Mules	30	4	6	"	2	"	60	8	150	340			\$0 85		16,800	2 00
Goodrich & Burton	Omburbridge	3,000	Shaft	Steam.	90	3	3	"	2	Fur.	4	1	250	50			1 10		1,750	2 35
John Mowbray	Atkinson.	2,000	Slope	Horse	40	3	3	"	2	"	4	1	250	250			1 10		3,900	2 25
James Kuy	"	1,500	Shaft.	"	40	3	3	"	2	"	5	1	120	120			1 10		1,200	2 25
James Campbell	"	1,000	Slope.	"	15	3	3	"	2	"	4	1	120	120			1 10		1,980	2 25
Armstrong & Welch	"	500	"	"	15	3	3	"	2	"	4	1	100	100			1 10		1,000	2 25
John Rockford	Hawley	500	Shaft.	"	40	4	6	"	2	"	2	1	200	200			\$0 85		2,000	1 75
Herdien Coal Co. No. 1	Galva	3,000	"	Steam.	61	4	6	"	2	Jet.	30	8	150	150			\$0 85		3,750	1 37
Herdien Coal Co. No. 2	"	6,000	"	"	61	4	6	"	2	"	40	8	280	280			\$0 85		12,600	1 37
Herdien Coal Co. No. 3	"	3,500	"	"	65	4	6	"	2	"	45	4	200	200			1 00		4,450	1 00
Herdien Coal Co. No. 4	"	6,600	"	"	70	4	6	"	2	"	55	6	280	280			\$0 85		12,000	1 45
Herdien Coal Co. Local.	"	3,500	"	"	65	4	6	"	2	"	25	4	280	280			1 00		7,500	1 80
Totals.		\$318,100									397	100	4,945	1,017	1	440	\$0 82	\$0 93	185,860	\$1 69

HANCOCK COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.			EMPLOYER.			PRODUCT.				
			Drift, slope or shaft.	Steam, horse or hand-power	Depth of coal below the surface—feet...	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and post workings	No. of places of egress	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine .....
					</								

KNOX COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.										EMPLOYER.						PRODUCT.	
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and room workings.	No. of places of egress.	Ventilation, by fan, furnace or otherwise?	Number of miners employed.	No. of other employees in and about mine.	No. of days worked during the year.	No. of kegs of powder used during the year.	No. men killed during year.	No. of men injured (so as to lose time).	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at the mine.	
George Clifford.	Oneida.	\$4,000	Shaft.	Horse.	40.	4	6	P-R.	2	Fur.	30	2	300	..	..	\$0 97½	6,000	\$1 75
James McGovern.	..	300	8 ops	..	50	4	6	..	2	..	1	1	280	..	..	87½	1,000	1 50
Charles Morgan.	..	100	Drift.	..	25	4	6	..	2	..	5	..	140	..	..	87½	500	1 50
Fred A. Johnson.	Galesburg.	50	Drift.	Hand.	30	4	6	..	2	..	4	..	200	..	..	86	4,500	1 50
Roas & Woodward.	..	400	Shaft.	Horse.	50	4	3	..	2	..	10	..	275	..	..	1 00	2,100	1 50
William Essex.	..	1,000	..	..	50	4	1	..	2	..	15	..	200	..	..	1 00	1,720	1 50
Thomas G. Willstead.	..	300	..	Horse.	24	4	1	..	2	..	10	..	280	..	..	1 25	1,100	1 50
Thomas Muir.	..	150	Drift.	Hand.	20	3	1	..	2	..	4	..	150	..	..	75	400	1 25
Gus Kodell.	Wataga.	50	..	..	40	4	6	..	2	Nat'l	12	1	225	..	..	87½	2,300	1 40
Louis Nodine.	..	200	Slope	Horse.	52	4	6	..	2	..	7	..	100	..	..	87½	480	1 50
Charles Bolline.	..	20	Drift	Hand.	30	4	6	..	1	..	2	..	275	..	..	75	1,263	1 25
Rosenburg & Pierson.	..	120	..	..	50	4	6	..	2	..	2	..	90	..	..	75	1,400	1 25
William Reece.	..	200	Shaft.	Horse.	20	4	6	..	2	..	8	..	240	..	..	75	2,300	1 40
Olaf Ostlin.	..	100	Drift	Hand.	30	4	6	..	2	..	7	..	220	..	..	87½	1,300	2 50
William Walsh.	..	100	Shaft.	Horse.	30	4	6	..	2	Fur.	10	3	50	..	..	1 00	140	1 75
R. M. Campbell.	Abingdon.	500	..	..	65	4	5	..	2	Jet.	1	..	120	..	..	1 00	480	1 75
O. W. Duffield.	Knoxville.	3,000	Shaft.	Steam.	8.	3	2	..	2	Nat'l	1	..	180	..	..	1 00	1,200	1 75
Andrew Nelson.	..	50	Drift	Hand.	30	2	6	..	1	..	5	..	200	..	..	1 00	400	1 75
James Nelson.	..	100	Shaft.	Hand.	16	2	6	..	2	..	7	..	200	..	..	1 00	200	1 75
S. H. Hopper.	..	150	Drift	Hand.	28	2	6	..	2	Fur.	3	..	80	..	..	1 00	450	1 75
Nelse Walburg.	..	50	..	..	20	2	6	..	2	Nat'l	2	..	160	..	..	1 00	1,000	1 50
Johnson & Larson.	..	30	..	..	20	2	6	..	2	..	4	..	120	..	..	75	1,850	1 50
Nelson & Anderson.	..	150	Slope	Horse.	25	4	6	..	2	Fur.	5	..	200	..	..	75	1,200	1 50
John A. Conkling.	Yates City.	165	..	..	50	4	6	..	2	..	7	..	200	..	..	75	1,000	1 50
Gus Dalton.	..	200	Shaft.	Horse.	25	4	6	..	2	..	10	..	200	..	..	75	1,200	1 50
John E. Furman.	..	250	Shaft.	..	50	4	6	..	2	Nat'l	3	1	120	..	..	75	1,600	1 50
Cassius Cox.	..	250	Shaft.	..	50	4	6	..	2	..	10	..	120	..	..	75	1,600	1 50

Knox County—Continued.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYES.				PRODUCT.											
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and room workings.	No. places of egress.	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd	Winter.	Summer.	No. of days worked during the year.	No. of kegs of powder used during the year.	No. men killed during year.	No. of men injured (so as to lose time).	Price per ton paid for mining.	Winter.	Summer.	No. of tons of coal produced (including nut coal.)	Average value of coal per ton at the mine.
A. C. Burnett	Maquon	\$15,750	Drift.	Hand.	20	2	4	4 P. R.	2	Nat'l.	2	2	\$1 00	\$1 00	200	...	...	...	\$1 00	...	300	\$1 75
Jesse Etcheson	Maquon	75	Drift.	Hand.	30	2	4	4 P. R.	3	...	1	1	1 12½	1 12½	160	...	...	...	1 12½	...	400	1 75
Nelson & Almgren	Rio	2,000	Shaft.	Steam.	65	5	1	...	14	...	3	3	87½	87½	250	50	...	...	87½	...	2,100	1 75
A. W. Harishorn	Victoria	40	Drift.	Hand.	20	3	6	...	4	...	4	4	87½	87½	80	...	...	...	87½	...	350	1 50
Ambrose King	"	50	...	...	12	4	6	...	2	...	5	5	75	75	140	...	...	...	75	...	520	1 50
W. H. Goff	"	100	...	...	20	4	6	...	1	...	5	5	87½	87½	140	...	...	...	87½	...	400	1 25
Erie Stomberg	"	25	...	...	20	3	6	...	1	...	2	2	75	75	140	...	...	...	75	...	60	1 12½
Peter Nelson	"	25	...	...	20	3	6	...	1	...	1	1	75	75	80	...	...	...	75	...	40	1 12½
David Grim	"	50	...	...	18	4	6	...	2	...	4	4	87½	87½	120	...	...	...	87½	...	600	1 25
J. W. Temple	"	40	...	...	32	4	6	...	1	...	1	1	75	75	200	...	...	...	75	...	130	1 25
Louis Wexell	"	30	...	...	20	4	6	...	1	...	1	1	75	75	60	...	...	...	75	...	30	1 25
George Shustrom	"	40	...	...	20	4	6	...	1	...	1	1	75	75	80	...	...	...	75	...	45	1 25
Louis Peterson	"	40	...	...	35	4	6	...	1	...	1	1	75	75	80	...	...	...	75	...	35	1 25
George Reed	"	30	...	...	25	4	6	...	2	...	5	5	75	75	160	...	...	...	75	...	520	1 25
George Nord	Truro	200	...	...	20	4	6	...	1	...	2	2	...	...	60	...	...	...	1 00	...	36	1 50
W. H. Parker	"	30	...	...	30	4	6	...	5	...	3	3	...	...	100	...	...	...	1 00	...	300	1 50
James McNaught	"	35	...	...	34	4	6	...	3	...	3	3	...	...	120	...	...	...	1 00	...	200	1 50
Henry McNaught	"	30	...	...	34	4	6	...	3	...	3	3	...	...	120	...	...	...	1 00	...	440	1 50
O. P. Severene	"	30	...	...	30	4	6	...	3	...	3	3	...	...	120	...	...	...	75	...	400	1 25
Totals		\$14,800							53		253	53	7,275	50	1	...	\$0 89	\$0 84		43,467	\$1 55	

McDONOUGH COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	CHARACTER OF PLANT.				EMPLOYEES.				PRODUCT.								
		Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam.....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd Winter..... Summer.....	No. of other employees, in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year.....	No. of men injured (so as to lose time).....	Price per ton paid for mining. Winter..... Summer.....	No. of tons of coal produced (including put coal).....	Average value of coal per ton at the mine.....
Quincy Coal Company.....	Colchester.....	17,000 Shaft.....	Steam.....	100.....	2.4.....	2.....	.....	2.....	Fur.....	225.....	18.....	210.....	.....	.....	2.....	\$1.50.....	55,000.....	\$2.04.....
Colchester Coal Co.....	4,000.....	.....	85.....	2.6.....	2.....	.....	2.....	.....	50.....	6.....	200.....	.....	.....	1.....	1.50.....	11,300.....	1.75.....
William Egerton.....	4,000.....	Horse.....	55.....	2.6.....	2.....	.....	2.....	.....	70.....	7.....	175.....	.....	.....	2.....	1.57 1/2.....	17,200.....	1.75.....
Thomas Wilson & Co.....	1,000.....	.....	65.....	2.6.....	2.....	.....	2.....	.....	17.....	2.....	200.....	.....	.....	.....	1.50.....	8,000.....	1.75.....
Tennessee Coal and Fire Clay Company.....	Tennessee.....	10,000.....	Steam.....	43.....	2.....	2.....	.....	2.....	Nat'l.....	20.....	5.....	145.....	.....	.....	.....	1.50.....	1,800.....	1.75.....
Fergus Whalen.....	500.....	Horse.....	27.....	2.2.....	2.....	.....	2.....	.....	5.....	2.....	90.....	.....	.....	.....	1.50.....	1,600.....	2.00.....
B. F. Thompson.....	50.....	.....	40.....	2.3.....	2.....	.....	2.....	.....	3.....	1.....	60.....	.....	.....	.....	1.50.....	100.....	1.75.....
James Eaton.....	25.....	.....	50.....	2.6.....	2.....	.....	2.....	.....	3.....	.....	110.....	.....	.....	.....	1.50.....	1,000.....	1.55.....
John Averill.....	50.....	.....	50.....	2.6.....	2.....	.....	2.....	.....	3.....	.....	90.....	.....	.....	.....	1.50.....	1,120.....	1.75.....
Mrs. Duil.....	75.....	.....	50.....	2.4.....	2.....	.....	2.....	.....	4.....	1.....	220.....	.....	.....	.....	1.50.....	1,000.....	1.75.....
Louis Lewis.....	Colchester.....	50.....	.....	50.....	2.....	2.....	.....	2.....	.....	6.....	1.....	230.....	.....	.....	.....	1.50.....	320.....	1.75.....
Wm. D. Williams.....	50.....	.....	50.....	2.....	2.....	.....	2.....	.....	3.....	1.....	160.....	.....	.....	.....	1.50.....	200.....	2.00.....
Newman Foster.....	75.....	.....	40.....	2.....	2.....	.....	2.....	.....	3.....	1.....	80.....	.....	.....	.....	1.50.....	50.....	2.00.....
Thos. Rippling & Bros.....	40.....	.....	50.....	2.....	2.....	.....	2.....	.....	3.....	1.....	60.....	.....	.....	.....	1.50.....	250.....	2.00.....
Samuel Moss.....	80.....	.....	50.....	2.....	2.....	.....	2.....	.....	3.....	1.....	120.....	.....	.....	.....	1.50.....	235.....	2.00.....
Charles Welch.....	300.....	.....	50.....	2.....	2.....	.....	2.....	.....	3.....	1.....	80.....	.....	.....	.....	1.50.....	200.....	2.00.....
John Zimmerman.....	50.....	.....	40.....	2.....	2.....	.....	2.....	.....	3.....	1.....	60.....	.....	.....	.....	1.50.....	400.....	2.00.....
R. F. McClure.....	50.....	.....	40.....	2.....	2.....	.....	2.....	.....	3.....	1.....	80.....	.....	.....	.....	1.50.....	200.....	2.00.....
Wm. Moon.....	50.....	.....	40.....	2.....	2.....	.....	2.....	.....	3.....	1.....	80.....	.....	.....	.....	1.50.....	400.....	2.00.....
G. W. Dixon.....	100.....	.....	50.....	2.....	2.....	.....	2.....	.....	3.....	1.....	80.....	.....	.....	.....	1.50.....	800.....	2.00.....
Wm. H. Hodgson.....	100.....	.....	50.....	2.....	2.....	.....	2.....	.....	3.....	1.....	80.....	.....	.....	.....	1.50.....	400.....	2.00.....
John Pearson.....	250.....	Horse.....	50.....	2.....	2.....	.....	2.....	.....	3.....	1.....	140.....	.....	.....	.....	1.50.....	900.....	2.00.....
Louis Atkinson.....	150.....	Hand.....	40.....	2.....	2.....	.....	2.....	.....	3.....	1.....	60.....	.....	.....	.....	1.50.....	400.....	1.75.....
Shad. Campbell.....	50.....	.....	40.....	2.....	2.....	.....	2.....	.....	3.....	1.....	80.....	.....	.....	.....	1.50.....	600.....	1.75.....
Wm. Robinson.....	50.....	.....	25.....	2.....	2.....	.....	2.....	.....	3.....	1.....	80.....	.....	.....	.....	1.50.....	300.....	1.75.....
Otto Yaap.....	200.....	.....	50.....	2.....	2.....	.....	2.....	.....	3.....	1.....	200.....	.....	.....	.....	1.50.....	100.....	2.00.....
Thomas Dodds.....	50.....	.....	50.....	2.....	2.....	.....	2.....	.....	3.....	1.....	200.....	.....	.....	.....	1.50.....	600.....	1.75.....

McDonough County—Continued.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.										EMPLOYEES.				PRODUCT.		
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	P-R.	No. of places of egress.	Ventilation, by fan, furnace or otherwise?	Number of miners emp.-of'd	No. of other employees in and about mine.	No. of days worked during the year.	No. of kegs of powder used during the year.	No. men killed during year.	No. of men injured (so as to lose time).	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at the mine.
										Winter	Summer								
Ervin Jones.....	Colchester ..		450 Drift.	Hand	50	2	2	2	2	Nat'l	3	1	200				\$1 50	600	\$1 75
Wm. MacIntosh.....	"		100 "	"	50	4	4	2	2	"	1		90				\$1 50	320	1 75
T. J. Bowman.....	"		50 "	"	50	2	2	2	2	"	2		60				\$1 50	70	1 75
Wm. Eckersley.....	"		100 "	"	50	2	2	2	2	"	2		100				\$1 50	150	1 75
William Ennes.....	"		600 Shaft.	Horse.	75	2	2	2	2	Fur.	12	2	200				\$1 50	1,050	2 00
David Sherbine.....	"		60 Drift.	Hand.	30	2	2	2	2	Nat'l	4	1	220				\$1 50	1,600	2 00
Michael Humes.....	"		60 "	"	40	2	2	2	2	"	6	1	125				\$1 50	1,200	1 75
Stephen Justen.....	"		1,000 Shaft.	Steam.	60	2	2	2	2	"	2	1	100				\$1 50	1,520	2 40
Louis Jeffries.....	"		100 Drift.	Hand.	50	2	2	2	2	"	2	1	130				\$1 50	200	1 75
William Bright.....	"		50 "	"	50	2	2	2	2	"	1		90				\$1 50	400	1 75
John Wilson.....	Macomb.....		50 "	"	80	2	2	2	2	"			100				\$1 50	50	2 00
George Archer.....	Fandon.....		40 "	"	90	2	2	2	2	"			60				\$1 50	600	2 00
William Kerr.....	"		20 Strip.	"	50	2	2	2	2	"	6		100				\$1 50	100	1 75
G. R. Frakes.....	"		100 Drift.	"	50	2	2	2	2	"	6		110				\$1 50	200	1 75
Jacob Morgan.....	"		50 Strip.	"	50	2	2	2	2	"	10		160				\$1 50	400	1 75
Wm. Erlsbee.....	"		25 "	"	50	2	2	2	2	"	2		40				\$1 50	1,000	1 75
Wm. Stonoking.....	"		50 Drift.	"	50	2	2	2	2	"	4		30				\$1 50	80	1 75
R. H. Frakes.....	Industry.....		150 Shaft.	Horse.	80	2	2	2	2	"	1	1	150				\$1 50	1,200	2 00
Jesse James.....	"		50 Drift.	Hand.	80	2	2	2	2	"	3		120				\$1 50	200	2 00
David Smith.....	"		50 "	"	80	2	2	2	2	"	2		50				\$1 50	160	2 00
Mr. Tuggle.....	"		50 "	"	80	2	2	2	2	"	1		80				\$1 50	150	2 00
George English.....	"		1,000 Shaft.	Horse.	52	1	1	1	1	"	2	2	60				\$1 50	400	2 50
Mr. Sullivan.....	"		300 "	"	52	1	1	1	1	"	2	2	100				\$1 50	350	2 50
John E. Dunham.....	Prairie City..		14,000 Drift.	Steam.	52	1	1	1	1	"	10	3	240				\$1 50	525	2 50
Chas. Millett.....	"		100 "	"	52	1	1	1	1	"	1		60				\$1 50	100	1 75
Prairie City Coal & Tile.	"				50	2	2	2	2	"	2						\$1 50		
Mrs. John Hood.....	Bushnell.....				50	2	2	2	2	"	2						\$1 50		

Prendell and Clark	Bushnell	100	Drift..	Hand.	50	2.4	1	P.-R	1	Nat'l	5	5	2	160	.....	..	...	1 25	1 50	1,000	1 75
Peter Whalen	Colchester	500	Shaft.	Horse.	27	2.6	2	..	2	..	3	5	2	120	.....	..	...	1 25	1 50	600	2 00
George Milliken	..	100	Drift..	Hand.	30	2.6	2	..	2	..	..	3	..	100	.....	..	...	1 25	1 50	280	1 75
Charles Meller	..	400	Shaft.	Horse.	30	2.4	2	..	1	..	3	3	1	60	.....	..	...	1 25	1 50	120	1 75
Jas. Roberts & Son	..	150	Shaft.	Horse.	50	2.4	2	..	2	..	3	5	2	80	.....	..	...	1 25	1 50	500	1 75
Joseph Dodds	Blandinsville	100	Drift..	Hand.	50	2.6	1	..	2	..	1	7	..	60	.....	..	...	1 25	1 50	600	2 50
R. Harvey	..	50	..	..	50	2.6	1	..	2	..	..	3	..	40	.....	..	...	1 25	1 50	50	2 50
John Meyers & Co	Colchester	100	..	..	40	2.4	2	..	2	..	2	4	..	120	.....	..	...	1 25	1 50	927	1 75
Totals		\$48,300									405	628	71	6,965	.....	1	5	\$1 27	\$1 50	113,937	\$1 63¼

MERCER COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYEES.					PRODUCT.		
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam.....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year.	No. of men injured (so as to lose time).....	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at the mine.....
									Winter	Summer.....							
Coal Valley Mining Co.	Cable	\$60,000	Shaft.	Steam.	60	4.6	1	P-R..	2	Fan..	171	100	487	1	\$1 08½	70,200	\$2 00
Coal Valley Mining Co.	Cable	15,000	Slope	Horse.	80	4	1	..	2	Fur..	75	50	113	..	1 08½	16,410	2 00
R. B. Ellis.....	Cable	10,000	Shaft.	Steam.	60	4	1	..	2	..	40	120	100	..	1 00	9,000	1 75
Charles Peterson.....	Cable	1,500	..	Horse.	65	4	1	..	2	..	10	140	26	..	1 00	2,105	1 75
Clarence Slocum.....	Viola	300	..	..	20	4	1	..	2	..	4	180	7	..	75	900	1 25
Russel Parks.....	Viola	1,000	..	..	32	3	1	..	2	..	2	300	20	..	80	800	1 50
William Blaine.....	Viola	900	..	..	32	3.6	1	..	1	..	6	250	30	..	85	2,559	1 50
William Guthrie.....	Viola	300	..	..	30	4	1	..	1	..	4	200	10	..	87	800	1 50
Samuel Guthrie.....	Viola	200	..	..	41	4	1	..	1	..	8	110	8	..	75	600	1 50
John D. Tarr.....	Viola, PopeCk	800	..	..	65	4	1	..	1	..	10	200	10	..	75	800	1 50
Francis M. Martin.....	Viola, PopeCk	60	Drift..	Hand.	20	4	1	..	2	..	3	120	25	..	75	3,000	1 50
John Smith.....	Viola	50	Slope	Horse.	30	3	1	..	2	..	1	120	7	..	75	210	1 50
John Thompson.....	Viola	800	Shaft.	..	56	4	1	..	2	..	8	120	25	..	75	500	1 50
Robert Taylor.....	Pre-emption.	700	..	..	61	4	1	..	2	..	3	200	7	..	75	2,149	1 62
Gettice & Taylor.....	Pre-emption.	800	Slope	Steam.	20	4.6	1	..	1	..	3	100	8	..	87½	600	1 62
Edward Boden.....	Pre-emption.	500	Shaft.	Horse.	36	2.6	1	..	2	..	8	200	16	..	75	1,650	1 25
Isaac T. Parker.....	Millersburg..	400	..	..	30	2.6	1	..	2	..	2	200	..	..	1 25	1,000	2 00
John T. Davis.....	Millersburg..	50	Drift..	Hand.	35	2.6	1	..	2	..	2	100	..	..	1 25	1,000	2 00
G. W. Fordham.....	Millersburg..	250	Shaft.	Horse.	20	2.6	2	..	2	..	1	100	..	..	1 12½	1,100	2 00
Swan Landgren.....	Aledo.....	400	..	..	30	2.6	1	..	2	..	6	250	10	..	1 12½	1,400	2 00
Griffin Bros.....	Griffin.....	300	..	..	30	2.3	1	..	2	..	25	280	20	..	1 25	2,400	2 00
Jones Simelson.....	New Windsor																
Totals		\$94,460									167	3,740	925	1	\$0.96	118,513	\$1 90

MARSHALL COUNTY—1884.

COAL MINES AND MINERS OF ILLINOIS.

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Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYEES.				PRODUCT.			
			Drift, slope or shaft.....	Steam, horse or hand-power	Depth of coal below the surface	Thickness of coal—feet and inches	Geological No. of seam....	Long-wall, or pillar and post workings	No. of places of egress	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	No. of days worked during the year	No. of kegs of powder used during the year	No. men killed during year	No. of men injured (so as to lose time)	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine .....
									Winter	Summer							
Wenona Coal Co.....	Wenona.....	\$30,000	Shaft.....	Steam.....	555	2.8	2	L-W.	65	225	3	1	2	\$1 15	14,500	\$1 55	
Charles Savill	Sparland	75	Drift..	Hand..	60	3.6	7	P.-R.	1	60	1	1	1	1 00	48	1 50	
David Mathias	"	50	"	"	50	3.6	7	"	1	100	1	1	1	1 00	160	1 50	
John Davis	"	150	"	"	50	3.6	7	"	1	120	1	1	1	1 00	120	1 50	
R. M. Frisbie	"	100	"	"	60	3.6	7	"	5	130	1	1	1	1 00	400	1 50	
W. M. Osborne	"	50	"	"	100	3.6	7	"	8	300	60	1	1	1 00	1,800	1 50	
Hoadley & Osborne	"	50	"	"	60	3.6	7	"	3	60	1	1	1	1 00	160	1 50	
John Daniels	Henry	50	"	"	175	3.6	7	"	2	70	12	1	1	1 00	400	1 50	
William Bough	"	300	"	"	100	4	7	"	2	60	12	1	1	1 00	400	1 50	
William Horrocks	"	200	"	"	100	3.6	7	"	2	60	24	1	1	1 00	320	1 50	
John McFadden	"	200	"	"	100	3.6	7	"	5	200	24	1	1	1 00	800	1 50	
James Thompson	"	800	Shaft.....	Horse.....	50	4.6	7	"	6	220	54	1	1	95	1,648	1 75	
Joseph Caley	"	50	Drift..	"	50	3.6	7	"	1	20	1	1	1	1 00	20	1 50	
John Kenney	"	60	"	"	50	3.6	7	"	1	100	1	1	1	1 00	160	1 50	
F. P. Porter	"	40	"	"	50	4	7	"	3	120	1	1	1	1 00	280	1 50	
W. C. Lopeman	"	40	"	"	40	3.6	7	"	1	90	8	1	1	1 00	80	1 50	
Timothy Mansell	"	40	"	"	50	3.6	7	"	2	90	1	1	1	1 00	280	1 50	
Totals		\$32,280							72	2,025	161	1	4	\$1 00	21,576	\$1 51	

ROCK ISLAND COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYES.					PRODUCT.				
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam.....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd	No. of other employees in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during year.....	No. men killed during year.....	No. of men injured (so as to lose time).....	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....
									Winter.....	Summer.....									
Taylor Williams.....	Rapid City.....	\$100,000	Shaft.....	Steam.....	80	4.6	1	P.-R.	2	Fan.	100	41	250	1,200	..	3	\$0 85	46,500	\$2 00
Gilchrist & Co.....	..	15,000	..	Horse.	100	4	1	..	2	Fur.	13	3	90	80	..	..	85	3,000	2 00
Bettig & Mosier.....	..	500	..	Steam.	35	2.4	1	..	1	Nat'l	6	1	110	15	..	..	1 00	500	2 12
Taylor Williams.....	Hampton.....	30,000	..	Steam.	80	4	1	..	2	Pan.	16	9	170	185	..	..	1 00	8,450	1 75
Heagy & Stoddard.....	..	20,000	..	..	63	3.6	1	..	2	S. Jet	25	6	213	105	..	..	1 00	8,200	1 75
Silvis Brothers.....	Carbon Cliff.....	5,000	..	Horse.	80	4	1	..	2	Fur.	20	2	230	75	..	..	1 00	6,531	2 00
Eureka Mining Co.....	Moline.....	25,000	..	..	56	3.6	1	..	1	Nat'l	12	4	80	15	..	..	1 00	1,170	1 75
Bailey Davenport.....	Rock Island.....	6,000	..	Steam.	80	3	1	..	2	Fan.	9	3	300	140	..	..	1 25	5,000	2 25
Bowles & Wotherspoon.....	Bowlesburg.....	1,000	Slope	Mule..	50	3.6	1	..	2	Nat'l	6	2	200	120	..	..	1 00	4,729	1 75
William Allison.....	..	1,000	..	..	60	3.6	1	..	2	Fur.	2	2	200	115	..	..	1 00	2,600	1 75
Mansill, Battersby & Seville.....	Coal Valley.....	60,000	Shaft.....	Steam.	40	3.6	1	..	2	Fur.	21	7	280	25	1	..	88½	7,482	2 00
Mansill, Battersby & Seville.....	Coal Valley.....	..	..	..	80	3.6	1	..	2	..	15	8	202	18	..	..	88½	8,226	2 00
John Pryce.....	..	200	Drift..	Mule..	30	4	1	..	2	Fur.	5	1	180	5	..	..	80	250	2 00
D. L. Edwards.....	..	50	..	Hand..	30	3.6	1	..	2	Nat'l	2	..	200	6	..	..	1 00	375	1 75
Joseph Garland.....	..	45	..	..	25	4.6	1	..	1	..	2	..	200	..	..	..	85	90	1 50
William Moss.....	..	50	..	..	30	4	1	..	2	..	1	..	200	..	..	..	80	100	1 75
Thomas Murphy.....	..	50	Slope	Horse.	15	4	1	..	1	..	1	..	30	..	..	..	80	40	1 90
Joseph Sackville.....	..	200	Drift..	Hand..	60	2.6	1	..	2	..	2	..	100	..	..	..	1 00	80	2 00
Patrick McCarty.....	..	60	..	..	30	2.6	1	..	2	..	2	..	140	..	..	..	1 25	320	2 00
Fred Vonach.....	Milan.....	300	..	..	42	3	1	..	2	..	2	..	250	..	..	..	1 00	480	2 00
Jacob Devore.....	..	2,000	Shaft.....	Horse.	70	3	1	..	2	..	2	1	240	..	..	..	1 00	720	2 00
Totals.....	..	\$266,455	..	..	..	..	..	..	..	..	213	90	3,865	2,104	..	4	\$0 92	104,643	\$1 94

STARK COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYES.				PRODUCT.								
			Drift, slope or shaft	Steam, horse or hand-power	Depth of coal below the surface—feet	Thickness of coal—feet and inches	Geological No. of seam	Long-wall, or pillar and room workings	No. of places of egress	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd	No. of other employees in and about the mine	No. of days worked during the year	No. of kegs of powder used during the year	No. men killed during year	No. of men injured (so as to lose time)	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine
										Winter	Summer								
James Higbee	Wyoming	\$2,000	Shaft.	Horse.	80	4	6	6	2	Fur.	11	1	200	60			\$0.87½	2,900	\$1.50
Stephenson and Watson	"	1,000	"	"	57	4	6	6	2	Nat'l	4	1	220				87½	2,020	1.50
Joseph Swanson	"	1,800	"	"	68	4	6	6	2	"	3	1	200				87½	1,600	1.50
John Price	"	75	"	"	28	4	6	6	2	"	2		100				87½	1,320	1.50
James Hess	"	25	Drift.	Man.	40	4	6	6	2	"	2		120				87½	480	1.37½
Henry Newton	"	50	"	"	50	3	6	6	2	"	1		120				87½	200	1.25
Frank Bouck	"	75	"	"	40	4	6	6	2	"	1		60				87½	80	1.25
A. Linscott	"	50	"	"	40	3	9	6	1	"	2		90				87½	480	1.50
Richard Howarth	"	100	"	"	80	4	6	6	2	"	3		120				87½	502	1.37½
John McCarty	"	75	"	"	30	4	6	6	2	"	2		120				87½	320	1.37½
George Wicks	"	50	"	"	40	4	6	6	2	"	1		200				87½	320	1.25
William Shaw	Toulon	500	Shaft.	Horse.	77	4	6	6	2	"	6	1	250	40			87½	1,680	1.50
John O'Neil	"	1,500	"	"	20	4	6	6	2	"	4	1	100	6			87½	480	1.50
William Newton	"	100	Drift.	Man.	30	4	6	6	2	"	1		130				87½	400	1.50
Mathias Oxberger	Bradford	800	Shaft.	Horse.	130	4	6	6	1	"	3	1	50	5			1 12½	160	2.00
Thomas Alken	"	2,000	"	"	105	4	6	6	2	"	7	1	250	95			1 12½	1,800	2.12½
Geo. L. Talbott	Modena	500	"	"	50	4	6	6	2	"	4	1	200	35			1.00	1,904	1.75
John Scott	"	800	"	"	48	4	6	6	2	"	4	1	200	50			1.00	1,400	1.75
John Catton	West Jersey	3,500	Drift.	Man.	35	5	6	4	2	"	6	1	230				87½	1,080	1.75
Totals		\$14,000									17	10	2,960	291			\$0.92½	17,126	\$1.60

STATISTICS OF LABOR.

SCHUYLER COUNTY—1884.

Name of firm, company or individual oper- ating mine.	Town or post- office nearest the mine.	Capital em- ployed.	CHARACTER OF PLANT.				EMPLOYEES.						PRODUCT.						
			Drift, slope or shaft.....	Hand.. Horse.. Horse..	250 250 300 2,000 6,000	Drift.. Shaft.. Slope	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	Winter	Summer.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year	No. of men injured (so as to lose time).....	Price per ton paid for mining.	Winter	Summer.....	No. of tons of coal pro- duced (including nut coal)	Average value of coal per ton at the mine.....
Porter & Lawrence	Ray.....	\$250	Drift..	Hand..	250	Drift..	Nat'l	7	3	2	1	2	280	..	..	\$1 00	1 00	2,880	\$2 00
Pemberton Bros.....	Ray.....	250	Drift..	Hand..	250	P-R..	..	3	..	2	..	..	280	..	..	1 00	..	1,296	2 00
John Karr.....	Rushville.....	300	Shaft.	Horse.	300	..	..	2	..	8	2	..	150	37	..	75	75	1,200	1 50
Munroe & Karr.....	Rushville.....	2,000	Shaft.	Horse.	2,000	..	..	4	..	20	4	..	240	114	..	75	75	4,000	1 50
Work Bros.....	Rushville.....	6,000	Slope	Horse.	6,000	2 Fur..	Fur..	..	..	..	..	..	100	100	..	..	..	3,500	1 50
Totals.....	.....	\$8,800	.....	.....	.....	.....	.....	14	40	40	7	7	1,050	251	..	\$0 92	\$0 85	12,876	\$1 66½

WARREN COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYEES.				PRODUCT.								
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and room workings.	No. of places of egress.	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd.	No. of other employees, in and about mine.	No. of days worked during the year.	No. of kegs of powder used during the year.	No. men killed during year.	No. of men injured (so as to lose time).	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at mine.
John Simecock	Alexis	\$1,000	Shaft	Horse	45	4	1	1	1	6	1	240	35						
William Cook	"	800	Drift	Mule.	30	3	1	1	1	4		120	8						
W. L. Miller	"	500	"	Hand.	20	3	1	1	1	3		180							
John A. Gordon	Roseville	1,500	Shaft.	Steam.	40	2	1	2	2	10	1	250							
Thomas Lee	"	100	Slope	Hand.	10	2	2	2	2	4		110							
Elquist Bros.	"	100	"	"	20	2	2	2	2	22		60							
J. V. White	"	100	"	"	30	2	2	2	2	8		120							
George Farrer	"	40	"	"	20	2	2	2	2	2		80							
J. W. Boon	Swan Creek	150	"	"	50	2	2	2	2	4		200							
Joseph Simpson	"	40	"	"	60	2	2	2	2	3		120							
Thomas Wearmouth	Youngstown	100	Drift	"	30	2	2	2	2	3		120							
Robtson Wilson	"	50	"	"	60	2	2	2	2	2		100							
Alfred Bonine	"	50	"	"	40	2	2	2	2	3		175							
Thomas Lee	"	50	Slope	Horse.	34	2	2	2	2	2		150							
Horace Wallace	"	40	Drift	Hand.	25	2	2	2	2	2		60							
Joseph Wilson	"	100	"	"	30	2	2	2	2	2		160							
John Belkirk	Monmouth	75	"	"	30	2	2	2	2	5		120							
William Johnson	"	400	Shaft.	Horse.	60	2	2	2	2	7		170							
Thomas Swin	"	300	"	"	20	2	2	2	2	5		200							
Thomas Hubbard	"	200	"	"	32	2	2	2	2	5		180							
John Rogers	"	50	Drift	Hand.	20	2	2	2	2	2		150							
Dan B. Pickard	"	250	Shaft.	Horse.	32	2	2	2	2	6		220							
William Moler	Kirkwood	350	"	"	25	2	2	2	2	7		180							
Totals		\$6,235								92	7	3,405	51						

RECAPITULATION BY COUNTIES.

Counties.	Capital em- ployed.	Acreage.....	No. of mines local.....	No. of mines shipping coal....	No. of mines.....	Kinds of power employed	Kinds of openings.	Modes of working coal, pillar and room, long wall, single and double entry.	No. of miners and other employees.			Average No. of days worked..	No. of kegs of powder used....	No. of men killed.....	No. of men injured so as to lose time.....	Average price per ton for mining.		No. of tons of coal produced, including nut.....	Average price of coal per ton at the mines.....	No. of mines with escapement shaft.....	No. of mines without escape- ment shaft.....	Kinds of power used for venti- lation.		
									Other em- ployes.....	Miners, winter.....	Miners, summer...					Summer....	Winter					Fan.....	Furnace.....	Steam jet....
Bureau.....	\$239,700	1,678	16	2	18	3	1	16	82	290	104	203	808	..	3	\$0 96½	\$0 97	88,564	\$1 58¾	13	5	2 13	..	3
Henry.....	318,100	1,506	19	7	26	4	4	26	100	778	397	190	1,017	1	4	82	93	185,860	1 69	21	5	3 12	..	3
Hancock.....	6,500	138	4	1	5	..	..	5	5	31	8	142	..	..	..	1 12½	1 12½	4,555	2 00	4	1	..	..	..
Knock.....	14,800	1,267	46	..	45	..	29	46	19	252	58	158	..	..	..	1 89	1 89	43,467	1 55	30	16	..	..	..
McDonough.....	48,300	3,871	58	4	62	4	43	62	71	630	405	113	..	..	..	1 27	1 50	113,937	1 63½	52	10	..	..	..
Mercer.....	94,460	1,522	19	3	22	..	2	22	201	404	167	170	..	..	..	1 96	1 97	118,513	1 90	18	4	..	..	..
Marshall.....	32,280	770	16	1	16	..	15	16	21	108	72	119	925	1	3	94	1 00	21,576	1 51	8	9	..	..	..
Rock Island.....	266,455	1,187	6	5	21	3	7	21	90	311	213	184	2,104	..	4	92	95	104,643	1 94	17	4	..	..	..
Stark.....	14,000	631	9	..	19	..	9	19	10	67	17	156	291	..	..	92½	91½	17,126	1 60	14	5	..	..	..
Schuyler.....	8,800	506	2	1	5	1	2	5	7	40	14	210	251	..	..	92	85	12,876	1 66½	4	1	..	..	..
Warren.....	6,295	395	13	..	23	..	9	23	7	92	26	150	51	..	..	1 33	1 54	17,224	1 98	21	2	..	..	..
Totals....	\$1,049,690	13,471	240	24	264	111	121	261	613	3,003	1,481	163	5,658	6	19	\$1 00	\$1 06	728,341	\$1 73½	202	62	9 87	..	6 162

THIRD DISTRICT.

MR. J. S. LORD, *Secretary of the Bureau of Labor Statistics of Illinois:*

SIR—As required by law, I herewith submit my first annual report as Inspector of Mines for the Third Inspection District of Illinois.

In preparing statistics of the amount of coal produced during the year, I have endeavored to obtain returns from all companies and individuals operating mines in the territory to which I have been assigned, but in some instances have failed to secure as complete and satisfactory figures as I could have wished. In such cases I have had recourse to my note-book, in which I have kept very full memoranda, so that the facts as stated will be very nearly correct—decidedly more so than those heretofore furnished your office. Owing to the sudden depression in the coal trade last November and December, I had expected this district would fall greatly behind last year's record, especially as the amounts reported last year were in many cases largely in excess of the amounts actually produced. Another cause operating against the output of this district has been the fact that operators in adjoining districts, by the use of wider and longer screens, and by getting their coal mined for lower prices, have been able to make serious inroads upon the trade which has heretofore been enjoyed by producers in this district.

I have been requested by both operators and miners to recommend the passage of a law regulating the dimensions of screens, and the width between screen bars, so as to secure uniformity of practice in this respect throughout the State. This would certainly be very desirable, but the enactment of such a law would be of no practical benefit to miners as long as they consent to become parties to special agreements for the evasion of the law.

That the output of coal for this district has not fallen short of that reported for last year, but rather shows an increase of 241,610 tons, is to be accounted for in two ways: First, the canvass of the territory has been more thorough than ever before, thus bringing many small mines into the list which had not before been reached; and, second, there has been an increase in the demand, arising from new manufacturing and transportation enterprises. By the more careful inspection of the district than my predecessors, the county inspectors, were able to give it, I am enabled to report 64 small mines and 16 stripping places in addition to those reported last year, making the total number embraced in this report 156, as against 92 given in the report for 1883.

As to their condition, I found it good in many instances, especially among the larger mines. It was not unusual to find more than the standard amount of air in the main entries, yet a deficiency at the working places, owing to neglect in the matter of turning the current up into the rooms. I have made constant effort to have this remedied, though with only partial success. I found miners frequently suffering from carbonic oxide immediately after blasting, and subject to long delays waiting for the smoke to be carried off from working places, while there might be a good enough volume of air in the main passages; and of course this state of things was proportionately aggravated where the volume was deficient everywhere. My observation and experience have convinced me that the legal standard of air should be increased from 30 to 50 per cent. Mines which are extensively worked, and have long and tortuous air courses, generate so many deleterious gases that a more powerful current is required to dissipate them than in newer mines. All authorities agree that mines, under the most favorable conditions, require at least 100 cubic feet of air passing per minute for each man, in order to maintain a good sanitary condition, and that, under certain circumstances, such as indicated, the necessity is equally great for as much as 400 or 600 feet per man per minute. I have measured the volume of air in some main entries where over 150 feet were passing per minute, or 50 feet more than the law in this State requires, yet it was so impregnated with noxious gases that it was not fit to work in. When it is considered that in 156 mines in this district over 40,000 kegs of powder are annually consumed, the combustion of which exhausts over 700,000,000 cubic feet of atmospheric air, which must be replaced, and that a large percentage of carbonic oxide has also to be diffused and rendered harmless, the necessity of increasing the amount of air required by law is apparent.

My attention has also been called to the evils of the company or truck-store system. Miners complain that they are compelled, directly or indirectly, to trade in them, at a disadvantage to themselves. I have endeavored to obtain lists of prices from these and other stores, in order to make comparisons, and upon which to base some statement as to the actual workings of the system, but have failed to obtain the necessary facts. Mine owners who have no stores also regard the system with disfavor, as the profits from the sale of supplies to the men enable their competitors to undersell them in the market. This is a matter of importance to many men, though it is entirely outside of the jurisdiction or cognizance of the inspector.

As a result of my labors in this field during the year, there have been nine ventilating fans constructed at important mines, which makes twelve in all now in operation in this district, there having been only three when I came on duty. More will be introduced shortly, as their manifest advantages over the furnace, both for their economy and efficiency, are being more fully recognized. They were objected to mainly, at first, on account of their costliness, but some trials have been made of a fan manufactured at Brazil, Indiana, combining good service with comparatively small cost, which have proved eminently satisfactory. I have also effected the construction of three improved furnaces for the better ventilation of mines.

In the matter of escapement shafts, I have ordered the sinking of 55 in different parts of the district, 30 of which have been completed, and perhaps more—the facts in regard to the remainder not having been as yet ascertained.

During my term in this district I have applied for four injunctions against mine-owners to compel compliance with the law, but have only carried suit into court in one instance. The others having complied with the requirements of the law, I suspended legal proceedings, my object being to secure the desired improvements with as little injury to the business of the operator, and as little loss of time to the men, as possible.

Upon entering on my duties I notified the miners to comply with the law in regard to the use of copper needles and copper-tipped tamping bars. Many of them did so, but others objected, and neglected to provide themselves with the safer implements, on the ground of their inability to buy them. When satisfied by personal enquiry that men could not purchase the new tools without suffering privations or incurring debt, I did not insist upon it, though I am in favor of the law, and regard it as a measure wholly in the interest of safety to miners.

There have been but three strikes in my district during the year, of which I have had knowledge. One was at Petersburg, Menard county, for an advance in wages, which lasted 27 days, and resulted in the company's conceding the demand. One in Athens, in the same county, was adjusted by arbitration. The other was in Peoria, and lasted four or five weeks. It was against a reduction of a half a cent a bushel, and the men finally yielded, though they did not at once resume work. An effort was made on the part of the owners to prevent certain of the strikers resuming work, which led to a good deal of ill feeling, and resulted finally in the organization of a co-operative company by the discharged men. About forty of them opened a drift in the vicinity, and if they succeed in securing railroad facilities, will doubtless do their share of the business in that section this winter. This strike did not affect the coal production of the district materially, as the supply was kept up by other mines in the vicinity.

Although it does not properly belong in this year's report, I will take occasion to mention here a serious explosion of fire-damp at the No. 5 shaft of the Grape Creek colliery, Vermilion county, on the 17th of August. The mine is just being opened, and the working places were consequently near the bottom of the shaft. The works below were well laid out, the connections all perfect, and a 7-foot Murphy fan in position at the top. Owing to the limited area below, and the ease with which ventilation could be established, it had been the practice to stop the fan when the men came out Saturday night, and start it again Monday morning. Sunday, the 17th of August, R. S. Cotton, in charge of the pumps, observing that the discharge of water was unaccountably muddy, determined to go down the shaft to look into the matter, and asked a friend, C. A. Morrison, to go down with him. They descended by the ladders, and while proceeding along the entry, at a distance of about 175 feet from the bottom, their open lights ignited the gas,

causing an explosion which instantly killed Cotton, and inflicted injuries upon Morrison from which he died on the third day thereafter. A trace of fire-damp had previously been observed by the pit-boss, but it was so slight that it was not considered a cause for any uneasiness. The presumption is that a discharge of gas from some crevice in a fault through which they were mining, had taken place, filling the spaces after the suspension of work Saturday night. If the fan had been kept running continuously, no such accumulation could have taken place; but unless a mine is known to generate fire-damp, which is exceptional in the mines of this State, or has been worked so extensively as to require a constant current to save delays in resuming work, no fans or furnaces are kept going during Sunday. Moreover, it was not expected or required of Mr. Cotton that he should go through the mine, though men with a similar charge frequently do so.

Mr. Beattie, the manager, is an intelligent, careful man, who takes a professional pride in correct mining, and in exact compliance with the law, and he has a class of efficient subordinates, of whom Mr. Roberts, of No. 5, is especially competent.

This accident, however, should establish the importance of maintaining a constant current, by fan or furnace, in all mines where fire-damp may be expected.

I present the following statistical summary for the district:

COUNTIES.	Number of mines.	No. OF MINERS		No. of other employees.....	No. days worked..	No. kegs of powder used.....	No. men killed.....	No. men injured..	No. tons of coal produced
		Summer.....	Winter.....						
Cass.....	2	14	28	7	500	196	2	2	2,425
Strippings.....	3								
Fulton.....	34	375	725	129	4,806	6,969	5	5	298,471
Logan.....	4	110	184	57	825	6,040	1	1	114,800
McLean.....	1	225	225	75	304	75	3	3	125,440
Menard.....	6	196	361	64	1,837	5,889	1	4	151,749
Peoria.....	61	565	1,108	150	8,700	15,583	4	4	444,915
Tazewell.....	8	40	96	13	1,307	1,255	2	2	53,590
Strippings.....	13								
Vermillion.....	35	832	1,294	233	3,765	11,803	9	16	630,906
Woodford.....	2	215	230	108	465	170	1	5	129,000
Totals.....	156	2,572	4,253	835	22,797	41,860	12	42	1,925,718
Strippings.....	16								

Output for 1883..... 1,684,108
Increase..... 241,610

One man killed for every 160,476 tons mined.

One man injured for every 45,850 tons mined.

One accident for every 35,611 tons mined.

Some of these accidents were clearly unavoidable. Others were the result of carelessness, and a disposition to take too many risks on the part of the victims. This is a matter difficult to control, and to prevent which requires the utmost vigilance on the part of underground managers.

I submit herewith memoranda from my note-book in regard to the condition of individual mines, and my action in regard to required improvements.

Very respectfully,

JAMES P. CUMMING, *Inspector*.

FULTON COUNTY.

Fulton county has had 34 mines in operation during the year, whose total output has been 238,431 tons of coal. The following are some of the more important and better managed mines:

EMERSON & Co.—ASTORIA.

The mines of this firm are in excellent condition; have two escape-ments, straight, well-driven entries, and 152 feet of air per man, and 600 feet for each mule in the workings. The only suggestion made was to have the air kept well up to the working faces by the use of additional screens or doors.

TAYLOR WILLIAMS—ST. DAVID.

This mine was lately purchased by the present owner, in poor condition, but permanent improvements were at once undertaken. A second hoisting shaft and new escapement has been sunk, and a small fan, which was only furnishing 40 cubic feet of air per man per minute, has been replaced by an 8-foot fan, which will doubtless afford abundance of air to the men employed.

THE WYMAN COAL Co.

This place was in fair condition as to ventilation in winter, but in summer no circulation was obtained at all. Directed a furnace to be constructed, which was promised. The slope was strongly timbered, but instead of setting the timbers perpendicular to the pitch, they had placed them so as to incline up hill, so that their power to resist pressure was very much diminished. The foreman's attention was called to the fact, and I should have ordered a change in the timbering had there not been several other places of egress to the men.

Heald's mine was in good condition.

JAMES STIRRAT'S MINE—CUBA.

This place is in good condition. The top works were burned down in the summer, but have since been rebuilt.

UNION COAL Co.—CUBA.

This mine had the required amount of air in circulation, but owing to the defective manner of laying out the works, with wide entries and long air-courses, the air was strongly impregnated with fire-damp. They had a furnace in the air-shaft, and their buildings

were all crowded over the top of the shaft. I instructed them to change furnace to the main shaft, and make changes in the air current, which was done. They also covered their cages.

WM. RUTHERFORD'S MINE, NEAR CUBA.

At this place they are working both the No. 5 and No. 6 seams. No. 5 is well ventilated, but No. 6 had no return air course, and the air was soft. I instructed him to put down escapement shaft, which was done at once, and which furnished the necessary return for the air.

EAGLE COAL COMPANY, NEAR CUBA.

No. 1—drift—was in fair working condition, though they had only single entries, and the cross entries were simple roadways cut across the face of the working rooms. The result was the drift was lost for want of adequate support.

No. 2—drift—was never in better condition, with good ventilation.

P. C. CHAPMAN, FARMINGTON.

This place has been worked for over eleven years, on the single entry system, and affords a good illustration of that method of working. They drive their entries fifty yards apart, and start their rooms twenty feet wide. Of course it is difficult to make any effectual stoppings for such openings as these, and consequently difficult to carry any volume of air unimpaired through the air-courses. Several measurements showed, for the first split, a leakage or loss of 1,232 cubic feet, and for the second a loss of 1,190 feet, and for another 986 feet, and so on. In one instance a current starting 141 cubic feet strong measured at the working face only forty-two feet per man per minute, all of which confirmed my opinion that the cost of making sufficient stoppings in such works as them, and of maintaining suitable ventilation, is quite as much as it would be to drive double entries and open up works on correct principles in the first place. I required more effective stoppings, and ordered new cage covers.

G. HINDSON, BREEDS.

Here are two drifts, one south and one north of the railway track.

That on the south has bad roof, making the coal difficult to work, but the other is in good shape, and supplied with good air.

Among the poorer mines are those of Engle, and of Battonburg & Dana, Astoria; Nicles of Ipavia, who was notified to retimber his shaft and sink escapement; Hulic, Felkill and Charles Walker, who have small knowledge of mining, and small regard for safety, comfort or the requirements of the law.

P. L. Canrod's place at Fiatt was poorly ventilated and badly managed. Ordered improvement in the ventilation, and the sinking of an escapement shaft.

Carpenter Lovejoy's mine was also in bad condition. Ordered escapement shaft and furnace.

Beacham's mine at Norris was poorly ventilated, but would be very much improved upon the completion of his escapement.

Vittum's mine, Norris, was very imperfectly timbered, and the lessee, Mr. Hart, was pushing the openings regardless of safety. Notified him to secure his shaft and sink an escapement shaft, which he refused to do. On my third visit I applied for an injunction to stop his working, but upon his agreement to go on with desired improvements I stayed proceedings.

PEORIA COUNTY.

In Peoria county the mines of the larger operators were generally in good working condition, as were also many of the smaller ones. Among the best regulated and equipped mines were those at Elmwood; the mines of Wantling & Howarth, Wilkinson, Kramm, Peter Grant, Joseph Collier, Chapman & Little, Walter Treasure, Newson Bros., J. J. McNeil, Bethard; at Lancaster, Hanna City Coal Co., Millard & Walschlog, James Monroe, John Gorman and Scholls.

Those are the best of the mines, all having over the legal amount of air in circulation on the main entries. All were instructed to turn the air up into the working rooms, but these instructions have as yet been very imperfectly carried out, and although plenty of air is in use, miners have trouble after blasting.

The Potts mine was also in good condition as to ventilation, but they will either have to increase their ventilating capacity, or change their system of working, as they drive 8-yard rooms for entries, and turn rooms from them, and it is impossible, with this system, to hold a current of air together for long distances. At the upcast there was 11,500 cubic feet of air, while at the farthest point to which the air was carried there was only 4,876 feet, showing a loss of 6,624 feet. Evident care is taken with the management of this property, but the system is wrong.

Among the worst of the smaller mines are those of Henry Vicory, at Pottstown, which exhibits the worst kind of management and ventilation, and the least practical knowledge of mining. He agreed to improve his ventilation, and to build his furnace so as to have the use of his air-shaft for an escapement. His mine on what is termed the "horse-shoe flats" is in somewhat better condition.

Another poor specimen of a mine is that operated by Wm. Nichols. There is no air in circulation, and no escapement. I instructed him and Mr. Woolen, agent, to procure a survey; and, upon examination of the plat, and finding there was less than two acres of coal remaining to be worked, authorized them to drive through and make connection with the workings of Millard and Walschlog, as otherwise they would have had to sink 120 feet for an escapement.

Dennis Mulligan's mine is another sample of hap-hazzard work, there being no system of entries or regular circulation of air. The works resemble a labyrinth, and at no point could a measurement of the air be taken except at the furnace. I left instructions to have a map of the mine made, and escapement constructed.

The worst of the lot of poorly-worked mines was that of F. Moon. There were no regular roadways, and no circulation of air. The timbering was very much rotted or fallen away, and had not been restored, and the only place of escape had been allowed to close in through neglect. It was certainly one of the most dangerous and shamefully neglected mines in the district. I directed the roadways to be retimbered, a correct map of the workings to be made, the ventilation to be brought up to the legal standard, and an escapement to be constructed before resuming operations.

All the small mines on Lamarsh creek are in poor condition, and with only one place of egress. I notified them all personally or by letter to make the necessary improvements, in compliance with the law.

LOGAN COUNTY.

The Lincoln Coal Mining Co., Lincoln, has been in operation over 15 years, and, until this spring, has had no escapement shaft. It is now, however, completed, and communication established with the hoisting shaft. The air in this mine was found very deficient, the supply being hardly sufficient for the mules alone. This state of things was, however, gradually improved under my directions, and on my last visit a fan was ordered, which is doubtless before this in operation, of sufficient capacity to ventilate the works properly.

The Citizens' Coal Mining Co., Lincoln, has a first class equipment, and a new mine, laid out now with double entries, and abundantly ventilated.

The Mt. Pulaski Coal Co. has been in operation only about a year. The seam is irregular, and difficult to work, owing to clay seams and "horsebacks." On this account the shaft was sunk to a lower seam, but it was not considered desirable to work it, and mining is continued in the upper seam. They have a fan, and the outfit and general condition is good.

McLEAN COUNTY.

THE McLEAN COUNTY COAL COMPANY—BLOOMINGTON.

The extensive mines of this company have been in operation seventeen years. Two seams are being worked, both on the long-wall principle, the upper one being 400 feet, and the lower one 5-1 feet below the surface. An inclined plane connects the two, and the coal from the upper seam is run down to the lower, and all coal is hoisted from the bottom of the shaft. The pit cars are hauled in and out by tail-rope, operated by a 60 horse-power engine, and 25 one-ton cars can be hauled at each trip. The system works

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well and is considered an economical method of hauling their very large output. They are producing from 500 to 700 tons per day, and have a capacity for 2,000 tons with their present equipment.

An eight-and-a-half-foot drum at the head of the inclined plane, between the two seams, is operated with double wire ropes to draw up the empty cars, and let down the loaded ones. Each one of the two cables is capable of holding 10 loaded one-ton cars, but only 5 are let down at once. The loads going down heave up the empty cars, and the drum is controlled by a simple lever-brake, so as to stop the loaded cars at will at any point on the incline.

The escapement shaft, recently completed, is 5x10 feet in dimensions, strongly timbered, and provided with stairways, hand-rails and convenient landings from the top to the bottom intersecting both seams. It is doubtless the most complete and costly escapement shaft in the State.

The works are ventilated by a 10-foot fan, which, driven at the rate of 65 revolutions per minute, was found to give 22,656 cubic feet of air; at the rate of 85 revolutions, 23,872 feet. and for 147 revolutions, 37,403 feet per minute. As their working force requires 22,000 feet per minute, the fan is kept at a speed of only 65 revolutions. They can not allow the whole of this current to circulate around the faces, the velocity being too great. About half of it is kept on the roadways, and swinging check-doors turn the air to the working faces at intervals, renewing the freshness of the current.

Mr. Radford, the underground manager, is preparing to split the current, which will further improve the character of the ventilation.

This is a model mine both in its construction, equipment and management, and deserves most favorable mention.

MENARD COUNTY.

The mines in this county are in very fair condition. One at Tallula has been abandoned this season.

J. C. Cabanas, Petersburg, has a mine which does not show the best of management, though it has more than the legal amount of air. He had no escapement shaft, but by changing the position of the furnace he was enabled to make use of his air-shaft as a place of egress.

T. F. Lanning, Petersburg. This mine has ventilation largely in excess of the legal requirement. At the upcast the volume was 13,000 feet for 56 men. They are introducing the single entry system here, driving with English brattice cloth until a given section is cut out.

THE PETERSBURG COAL COMPANY.

This company has a well appointed mine, employing over 100 men and six mules. Ventilation abundant. The coal is from six to seven feet thick, but it has a very variable top requiring considerable care and expense for timber. A commendable practice in this mine is the driving of a blind entry between each pair of cross

entries, as soon as they are worked out, to increase the ventilating facilities. By this means the air-courses are greatly shortened and improved. This company shows an evident desire to anticipate and keep in advance of legal requirements.

GREENVIEW COAL COMPANY.

This mine is in very fair condition and is worked on the double-entry system. It has enough air in circulation if properly conducted, but by using screens, for the most part in dilapidated condition, instead of doors, much of the air is wasted. Mr. Wadsworth, Superintendent, proposes to remedy this defect in the ventilation.

I had been informed that this company did not weigh the miners' coal and was requested to enforce the law in this respect. Believing it my duty to do so, I made an effort in that direction, but found that I was powerless in the matter, owing to the fact that the miners had entered into a special agreement with the company for the purpose of evading this provision of the law.

The Athens Coal Company has good ventilation, but their escapement is too small. Otherwise the place is all right.

An escapement has been sunk this year at the Sweetwater mine.

CASS COUNTY.

THE CASS COUNTY COAL COMPANY, ASHLAND.

This is a co-operative company composed of coal miners, who at great cost of labor have sunk a shaft 205 feet, only to find 30 inches of coal. They have no trade except to supply the local demand. The time has already expired in which they should have had an escapement, but I do not suppose they will be able to sink it.

THE VIRGINIA COAL AND WATER CO., VIRGINIA.

This company has a three-foot seam of good quality, which they are just opening, though not in good shape. If the workings were properly laid out on the long-wall system, and a market were secured, the property could be made to pay. An escapement was begun, but work was subsequently suspended because they could not secure railroad facilities for shipping. On my last visit only six miners were at work, merely for the purpose of keeping the place in workable condition, and I allowed them to continue while negotiations with the railroad company were pending.

TAZEWELL COUNTY.

This county has eight mines, though one of them—Vaglesang's, at Hilton,—has this year been worked out.

The principal mine is operated by D. M. Alexander, and has been worked for fourteen years. The air-courses are consequently

long, and although the amount of air passing was really up to the legal standard, it was impregnated with so much carbonic acid gas as greatly to impair its quality. The company, however, opened a new air-course, shortening the distance and improving the ventilation. They had no escapement shaft, but I induced them to order a fan and get the use of the air-shaft for place of egress. On my last visit they had only to attach the engine to the fan to have it in operation. This improvement will give them rank among the better class of mines.

Rundle & Goold's mine was found in good condition, but they had no escapement shaft. Subsequently they constructed a good one, with stairs and railings from top to bottom.

J. B. Ledterman's mine is poorly managed, though well ventilated. I had some trouble to get him to sink an escape shaft, being obliged to take legal proceedings. On my last visit, however, the new shaft was within ten feet of the coal.

Norman C. Hawley is working rather an old mine, fairly conducted, and well ventilated. The road to the escapement was blockaded, but subsequently cleaned up. He enlarged and retimbered his hoisting shaft and covered his top buildings with corrugated iron, to render them fire proof. The only thing now wanting is a brake on the drum, which he has promised to put on.

Mr. Dissman's mine, four miles from Pekin, required retimbering at the bottom of the shaft, also an escape shaft. He put in the timbers and sunk the shaft.

G. Millard's shaft was frozen up last winter, and he informed me he should not attempt to do any more work that season. I instructed him to put in an escapement shaft before resuming operations.

Ruche Bros. only work a few men during the winter, but had good air and an escapement.

WOODFORD COUNTY.

THE CHICAGO AND MINONK COAL MINING CO., MINONK.

This company has been in operation for fifteen years. It has an extensive plant, a large business, and a deep shaft to a thin seam of good coal. This is generally considered the No. 2 seam, but I was informed by Mr. McDonald that two workable seams had been found below it, so that it may really prove to be No. 3. There were 258 men and 18 mules at work in this mine, and the ventilation was very defective. Several measurements of the air, both at the in-take and up-cast, disclosed the fact that the current was really barely sufficient for the animals. The stables were also placed at intervals along the in-take air-course, which still further impaired what feeble current there was in circulation. To remedy this condition of things, the company erected a ten-foot fan, driven by a 45 horsepower engine, and reversed the current. On a subsequent visit, I found 17,028 cubic feet of air passing, which was still further increased by enlarging the fan blades. An escape shaft had been

sunk, but was unavailable, as they had neither stairways nor hoisting apparatus in position. In compliance with my instructions, they put in suitable guides and a cage, and have made arrangements to attach the rope to the hoisting drum in case of emergency.

THE ROANOAKE MINING Co., ROANOAKE.

This company has a new enterprise, a good equipment, and rather poor prospects, as they have barely 30 inches of coal. I found their buildings at the pit-head all of wood, though within the limits requiring fire-proof buildings, and that they had no escapement; also that one of their ropes was only 51.8 inch.

After an interview with the company, I consented to let the buildings stand, upon condition that they provide a good force pump and hose, and that they proceed at once with the escape shaft and push it to completion without delay.

They put in a new rope at once, and on my last visit the new shaft, $8\frac{1}{2} \times 5\frac{1}{2}$ was down 117 feet. As they were working only one shift upon it, I directed them to double the force, and complete the work with all possible despatch.

VERMILION COUNTY.

THE ELLSWORTH COAL COMPANY.

This company controls large mines, not only near Danville, in this county, but in other parts of the State, and is one of the largest companies in the State. They have three mines in this county, all well laid out, and liberally equipped with improved apparatus. Nos. 1 and 2 both have a volume of air in circulation in excess of the amount required by law, but the workings are so extensive that a good deal of black-damp is thrown off, and there is so much carbonic oxide resulting from the combustion of large quantities of powder, that the quality of the air is very much impaired before it reaches the last of the men. Dividing the air-current into several "splits" is recommended to obviate the difficulty. The traveling way to the escape shaft was found somewhat obstructed, but was cleaned up when attention was called to it. No. 3 mine was found in very bad condition as to ventilation on my first visit. There was air enough at the in-take, but scarcely any at the working faces. Upon taking measurements in the different portions of the mine the leakage was discovered, and repairs of the air-courses were at once instituted, which resulted within thirty days in giving 120 cubic feet of air per man per minute at the working places. All desired improvements were made thoroughly and promptly.

THE GRAPE CREEK COAL COMPANY.

This company's mines are well conducted. As a rule there is a standard supply of air, and it is the evident purpose of the company to maintain it. This is the only company in the Third District which proposes to introduce the mining machines. They are now

erecting a powerful compressor for the purpose of testing the economy of machinery. An explosion of fire-damp occurred at the No. 5 shaft of the company, of which the details are given elsewhere. The mine is one of the best in the county or district in plan and equipment, the escape shaft is complete, and a powerful Murphy fan in position. This is another of the large companies of the State.

Michael Kelley's mine at Grape Creek was opened one year ago. His machinery is too light, although the mine being recently opened, the miners were not suffering for air. Their actual supply, however, was only sixty-two cubic feet per man. He had no escapement, and his buildings at the top were wood. I advised him to put in a fan and get the use of his air-shaft for escapement purposes. This was done, and an abundance of air secured.

Phillippi & Tucker, at Blount, were directed to begin the construction of an escapement shaft within ten days.

Samuel Swisher, Pilot township, has just opened a new shaft.

W. A. Hodge, S. and M. France, John W. Woodward, and Chas. Tilton have completed their escapement shafts.

Daniel France was notified to sink escapement, repair timber in hoisting shaft, and put in new ropes and guides. Two months later I found he had only begun shaft and then abandoned it and neglected all the other matters. I gave him notice not to resume operations without complying in all respects with law, under penalty of legal proceedings.

V. Schoek was instructed to renew timbering in his shaft, put in new rope, and sink an escape shaft.

B. G. Wilmoth was directed to replace platform at the top with heavier material, and sink escape shaft, which he promised to do.

Thomas Thomas, Catlin, was also instructed to sink an escapement shaft.

FATAL ACCIDENTS.

No. 1.—August 17, 1883, at Grape Creek mine, Sampson Cotton and Clarence Morrison; married; each leaving a widow, the former three and the latter two children. By an explosion of gas, Cotton was killed instantly, and Morrison died from the effects on the 20th. A full account of this is given elsewhere.

No. 2.—November . . ., 1883, John Nichols, aged 38 years; married; leaves a widow and three children. Was working under top bench of coal, which fell, killing him instantly.

No. 3.—May 19, 1884. Danville mines. Frank Jones, aged 47, and son George Jones, aged 15. The father leaves a widow and three children. They had blasted one side of top coal and were cutting the other side. After cutting as far as he could reach, he got under to cut further, with his son to shovel from under the coal, when it came down, killing both.

No. 4.—June 5, 1884. Grape Creek mine. Fred Hecker, aged 55; married; leaves a widow. Was fatally injured in the back by top coal falling on him while loading his car. He died the same evening.

No. 5.—June 21, 1884. Atlanta mines. Charles Patterson, aged 22; single. Was killed by the crank of a windlass while hoisting a pump. Coroner Boyden held an inquest, and the verdict relieved the company from responsibility.

No. 6.—October 18, 1883. Frank Clary was seriously injured by falling of fire-clay. There were two veins. He had blasted down the top vein and went under to drill a hole in the lower, and the clay separating, the two veins settled down on him, crushing his spinal column. He was still living on the 25th of June, but there were no hopes of recovery.

NON-FATAL ACCIDENTS.

GRAPE CREEK MINES.

No. 1.—November 16, 1883. Abraham Bisch had his thumb nearly severed by a piece of coal he was taking out.

No. 2.—November 9, 1883. Isaac Poore was seriously injured by the falling of a loose rock he was sounding, which drove the pick into his leg. He has not been able to work for four months.

No. 3.—May 26, 1884. Victor Fair had his arm broken by top coal falling soon after firing a shot.

No. 4.—June 2, 1884. Gordon Rardin. While taking down the top coal it fell, breaking his leg in two places between the ankle and knee.

No. 5.—June 5, 1884. Michael Devine had his collar-bone broken by falling of roof.

No. 6.—December 1, 1883. John Becker, of Scholl's mine, was working in a room that had a horseback which he thought could be opened, and was working out a shot, when the roof gave way, bruising him badly.

No. 7.—February 28, 1884. Bloomington mine. John Anderson had his leg broken by the falling of roof, which he had not secured properly.

No. 8.—January 24, 1884. Richard Bramble, at Bloomington mine, had his leg broken while driving his trip; supposed to have missed putting in his sprag, and was trying to check its speed by pulling on the side of the car, which caused it to run off the track.

No. 9.—December 12, 1883. At the Ashland mine, John J. McGovern, after firing a shot, found some of the top loose, which he tried to pull down; not succeeding he went under it to see the effect of the shot, and while there the slate fell on him breaking his leg above the ankle.

No. 10.—October 25, 1883. Albert Coaly at the Virginia mine received a fracture of a rib, by the fall of loose slate, which he had tried to pull down.

No. 11.—February 12, 1884. At Hannah City mine, Henry Gahm had his neck hurt as a result of carrying his tools on the cage.

No. 12.—March 3, 1884. Thomas H. Jefford was bruised by the descending cage while attempting to step across the bottom underneath it.

No. 13.—March 4, 1884. John Jefford and Charles Ross had fired a shot and stepped under a clod, which was over the coal; this gave way and one was slightly, the other more severely hurt.

No. 14.—February 16, 1884. At Orchard mines Joseph Hauldsworth received several cuts and bruises on his arm and head, from a small fall of slate, resulting in loss of two weeks' work.

No. 15.—May 19, 1884. At Danville mine John Flaherty had his leg broken by a shot blasting through a pillar, which he had got behind for protection.

No. 16.—February 2, 1884. Mine at Astoria, Levi Moore broke his leg by falling down steps.

No. 17.—February 17, 1884. Matthew Kinnemore fell from elevated tramway, and badly sprained his ankle.

No. 18.—February 21, 1884. Jacob Gissart had his foot scalded by stepping in hot water vat.

No. 19.—February 20, 1884. At Roanake mine, Lewis Reuble had his leg broken by pit car running against him. He was unable to work for two months.

No. 20.—March 3, 1884. Frank Siedtroth had his leg broken by stone falling on him in his room.

No. 21.—November 16, 1883. At Greenview mine, J. A. Stone was seriously hurt; while mining out a standing shot the coal fell on him, dislocating his ankle and fracturing the bone. He was unable to work for about two weeks.

No. 22.—November 19, 1883. At Lincoln mine, John Wertin, Peter Studacker and George Worshe had their arms and faces burnt by the blowing out of an imperfect charge.

No. 23.—January 12, 1884. Taylor Mayfield, in crossing the sump, slipped and fell in, injuring his back.

CASS COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.		EMPLOYEES.				PRODUCT.									
			Drift, slope or shaft	Steam, horse or hand-power.....	Depth of coal below the surface—feet	Thickness of coal—feet and inches	Geological No. of seam ..	Long-wall, or pillar and room workings.....	No. of places of egress....	Ventilation, by fan, furnace or otherwise? . . .	Number of miners employed	Price per ton paid for mining.	No. of men injured (so as to lose time).	No. men killed during year	No. of kegs of powder used during the year	No. of days worked during the year	No. of other employees, in and about the mine	Average value of coal per ton at the mine.....
										</								

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.					EMPLOYEES.					PRODUCT.						
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and room workings.	No. of places of egress.	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd	No. of men injured (so as to lose time).	No. men killed during year.	No. of kegs of powder used during the year.	No. of days worked during the year.	No. of other employees, in and about mine.	Price per ton paid for mining.	No. of tons of coal produced (including out coal).	Average value of coal per ton at the mine.
										Winter	Summer								
W. H. Emerson & Co	Astoria	\$23,000	Shaft.	Steam.	80	5 3/4	5	R. P.	3	Fur.	50	15	200	956		3	\$0 75	54,600	\$1 17
Jacob Bannan	"	1,000	Slope	Hand.	85	3 3/4	5	"	1	Nat'l	2	1	"	"			1 00	192	1 62 1/2
Bottenberg & Engle	"	1,000	Shaft	Horse	50	5 3/4	5	"	2	Fur.	3	1	200	100			75	2,654	1 50
Edw. Mills, Empire M.	Idaville	1,000	Shaft	Hand.	30	5 3/4	3	"	1	Fur.	3	1	300				1 09	1,300	1 50
Isaac Barb.	Lewisville	500	Drift.	Hand.	45	3	3	"	2	Nat'l	1	1							
John H. H., leased to	"		Strip	"		3	3	Strip		"								240	
John Brown,	"		Drift.	"		3	3	R. P.		"			100				1 00	600	1 50
Chas. Walker, leased to	"		Strip	"		3	5 1/4	"	2	Fan.	30	9	165	606			75	21,762	1 50
H. H. H.	Bryant	20,000	Shaft	Steam.	42	5 1/4	5	Strip	2	"	3	6	100					1,200	1 50
G. N. Shallenburger	St. Davids	2,000	Strip	Hand.	9	5	5	R. P.	2	Nat'l	8	18	150	300			75	10,000	
Weyman & Co.	"		Slope	Steam.	35	5	5	"	2	Fan.	60	10	180	920			75	30,457	1 15
Taylor Williams No. 1	"		Shaft.	"	64	5		"		"									
Taylor Williams just fit	"		Shaft.	"		5		"		"									
ing up, No. 2	"		Strip	"				"		"									
Abraham Ford reported	"		Strip	"				"		"									
A. W. Head	Canton	20,000	Shaft.	Steam.	70	4 10	5	R. P.	3	Fan.	10-15	15	153	500			75	17,000	1 50
James Stuart	Cuba	15,000	Slope.	Hand.	62	4 6	5	"		"	30	9	175	378			75	21,000	1 25
Taylor & Co.	North Canton		Slope.	Hand.	30	4 3/4	5	"		"	6							3,000	
Cuba Union Coal Co.	"		Shaft.	Steam.	70	4 1/4	5	"		"	25	8	313	530		1	75	15,779	1 31
Co-op. Empire Shaft	Cuba	1,000	Drift.	Hand.	25	5 3/8	6	"	2	Fur.	35	5	275	300			75	20,800	1 37 1/2
Wm. Rutherford	"		Slope.	"	35	5	5	"	2	Fur.	18	4	225	400			75	16,469	1 25
Eagle Coal M. No. 12	"		Slope.	"	17	6	6	"	2	Nat'l	2-1	15						3,118	
G. F. V. et	Seville	1,000	Shaft.	"	30	3	3	"	3	Fur.	28	5	200	600				16,000	
Seville C. & L. Co., aban.	Seville	2,000	Slope.	"				"		"									
P. L. Conrad, now	"		Shaft.	"	35	4 8	5	"	2	Fur.	2	15	200	100			75	2,400	1 25
Churchill & Oram	Fiat	1,000	Drift.	Horse.	32 1/2	4 10	5	"	1	Fur.	11	2	200				75	3,500	1 25
Carpenter & Lovejoy	Cuba																		

Fulton County—Continued.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYES.					PRODUCT.	
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	Winter.....		No. of men injured (so as to lose time).....	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....
												Summer.....	Price per ton paid for mining.			
Hitchens & Wright.....	Cuba.....	.....	Drift..	Hand..	40	4½	5	R. P.	1	At'tive	2	2	\$1 25	.....	640	\$1 50
Robert Beacham.....	Norris.....	.....	Shaft..	Horse..	75	4½	6	..	2	Nat'l	8	2	87½	.....	1,460	1 50
Hart & Brown.....	.....	\$5,000	..	Steam..	112	4½	6	..	2	..	8	8	87½	.....	1,200	1 50
P. P. Chapman.....	Farmington..	15,000	..	..	165	4½	5	..	4	Fur..	36	15	75	.....	11,000	1 20
G. W. Hinson.....	Breeds.....	6,000	Drift..	Horse..	45	4½	5	..	3	..	37	27	87½	.....	12,000	1 25
L. L. Jones.....	Kawalt.....	6,000	..	..	45	4½	5	..	3	..	12	8	87½	.....	6,000	1 25
Gallagher & Merrimon..	Canton.....	.....	..	Hand..	40	4½	5	..	1	Nat'l	5	5	.....	.....	1,200	1 50
R. F. Blagden.....	Rockville.....	.....	..	..	..	..	..	..	..	..	..	..	1 00	.....	10,691	1 62½
Canton Coal Co.....	Canton.....	7,000	Shaft..	Steam..	60	4.6	5	..	2	Fur..	15	8	75	.....	7,000	1 25
H. Hall—stripping.....	Buckhart Tp.	.....	..	..	..	..	..	..	..	..	2	2	.....	.....	240	1 50
John Parker—stripping..	Babylon.....	.....	..	..	..	..	..	..	..	..	..	..	.....	.....	240	1 50
Mark Whitehead.....	.....	.....	Drift..	Hand..	60	6	4	R. P.	1	Nat'l	8	1	.....	.....	1,800	1 50
Pat Linden, lessee.....	Canton.....	500	Shaft..	..	30	4½	5	..	1	..	4	4	90	.....	2,000	1 50
Totals.....	.....	\$133,200	.....	.....	.....	.....	.....	.....	.....	.....	725	375	\$0 82	5	298,431	\$1 27

MENARD COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYEES.						PRODUCT.			
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and post workings.	No. of places of egress.	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd.	No. of men injured (so as to lose time).	No. men killed during year.	No. of kegs of powder used during the year.	No. of days worked during the year.	No. of other employees, in and about mine.	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at the mine.
									Winter	Summer									
Greenville Coal Co.	Greenville....	\$20,000	Shaft.	Steam.	92½-6	5	5	R. P.	2	Fur.	55	1	1,300	300	300	7	62½	40,000	\$1.25
Athens Coal Company..	Athens.....	10,000	"	"	227 6	5	5	"	2	"	68	"	1,100	313	313	8	75	26,000	1.75
J. C. Cabanas, South Valley	Petersburg...	5,000	"	"	70 6	5	5	"	1	"	25	"	200	313	313	4	75	5,012	1.25
Petersburg Coal Com-pany, No. 1	Petersburg...	.....	"	"	90½-7	5	5	"	2	"	120	"	1,715	300	300	25	62½	50,000	1.00
Petersburg Coal Com-pany, No. 2.....	Junct'n Shaft	.....	"	"	68½-7	5	5	"	2	"	60	"	1,100	286	286	12	62½	20,000	1.25
Tallula-Petersburg Coal Company.....	Tallula.....	6,000	"	"	186 6	5	5	"	3	Nat'l	30	"	394	225	225	6	62½	8,757	1.00
Sweet Water Coal Com-pany, Wm Perkins....	Sweet Water.	.....	"	Hand.	.....	5	5	"	2	Fur.	3	3	80	200	200	2	1.75	2,000	1.75
Totals .....	.....	\$41,000	.....	.....	.....	.....	.....	.....	.....	.....	196	.....	1,937	1,937	1,937	64	\$40.81	131,749	\$1.54

McLEAN COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.		EMPLOYES.				PRODUCT.	
					Price per ton paid for mining.	No. of men injured (so as to lose time)		No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....	
Number of miners employ'd	Winter	No. men killed during year	No. of kegs of powder used during the year	No. of days worked during the year		No. of other employes in and about the mine	3			125,000	$1 35
	Summer.....				75 ..			\$0 75		
McLean County Coal Co. Bloomington.		\$90,000	Ventilation, by fan, furnace or otherwise?.....	2 Fan.	304	75	3	125,000	\$1 35	
			No. of places of egress....	2 Fan.						
			Long-wall, or pillar and room workings.....	L-W						
			Geological No. of seam....	..						
			Thickness of coal—feet and inches	513 3-4						
			Depth of coal below the surface—feet.....	513 3-4						
			Steam, horse or hand-power	Steam.						
			Drift, slope or shaft	Shaft.						

LOGAN COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYES.						PRODUCT.					
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd Winter..... Summer.....	No. of other employees in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year.....	No. of men injured (so as to lose time).....	Price per ton paid for mining. Winter..... Summer.....	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....
Mt. Pulaski Coal Co.	Mt. Pulaski...	\$30,000	Shaft.	Steam.	360	4½	5	P-R	1 Fan. 2 Fur..	20 80	5	250	560	1	1	\$0 75 79	16,800	\$1 25
Lincoln Coal Mining Co.	Lincoln.....	62,500	"	"	266	5	5	"	"	40	37	300	3,500	1	1	\$0 75	67,000	1 24
Lincoln Coal Mining Co. No. 2.....	"	.....	"	"	265	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Citizens' Coal Mining Co. No. 1.....	"	50,000	"	"	266	5	5	P-R	1 Nat'l	50	15	273	2,000	1	1	75	35,000	1 60
Totals.....	.....	\$142,500	.....	.....	.....	.....	.....	.....	.....	110	57	823	6,060	1	1	\$0 75 76	118,800	\$1 34½

PEORIA COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest (1/2 mile).	Capital employed.	CHARACTER OF PLANT.										EMPLOYEES.					PRODUCT.	
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and room workings.	No. of places of egress.	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd	No. of other employees in and about mine.	No. of days worked during the year.	No. of kegs of powder used during the year.	No. men killed during year.	No. of men injured (so as to lose time).	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at the mine.
										Winter	Summer								
Elmwood Coal Co.	Elmwood.	\$75,000	Sh. ft.	Steam.	60	4 6	5	R. P.	2 Fur.	40	9	300	400	...	...	...	20,000	\$1 25
E. Kramm & Co.	Kramm	12,000	Drift	Mules	70	4 6	5	..	2	52	12	300	1,000	...	...	...	37,000	1 25
J. H. Wilkins & E. Kramm.	Edwardes Sta.	...	Slope	Steam	70	4 6	5	..	2	75	6	300	1,000	...	...	\$1 00	25,000	1 25
Wantling & Howarth.	..	15,000	Drift	Horse	60	4 6	5	..	1 Nat'l	15	8	250	300	...	...	1 00	4,000	1 15
G. Potts' Kickapoo Coal Mining Co.	..	...	..	Steam	80	4 6	5	..	2	30	10	300	1,000	...	...	1 00	40,000	1 25
Henry Vicary	Pottstown.	6,000	..	Horse	85	4 6	5	..	3	20	7	250	600	...	...	90	18,000	1 25
James Aberly & Co. U. Parker.	..	300	..	Mules	85	5 6	5	..	2	3	1	200	70	...	...	87 1/2	2,000	1 40
Corkoran & Co.	..	100	..	..	125	4 6	5	..	3	1	4	150	70	...	...	75	1,800	1 25
Henry Vicary	..	400	..	..	125	4 6	5	..	3	6	4	200	70	...	...	87 1/2	2,000	1 25
Ed. Allan.	So. Pottstown	...	..	..	77 1/2	4 6	5	..	2 Fur.	3	2	200	84	...	...	87 1/2	2,500	1 40
Philip Delt & Co. Allan, Agent.	Peoria.	...	..	Hand.	77 1/2	4 6	5	..	2 Nat'l	...	6	200	90	...	...	87 1/2	2,700	...
H. Vicary	..	...	..	..	77 1/2	4 6	5	..	1	...	...	...	...	...	...	...	...	...
Edw. Allan, agent for Kidder.	..	...	..	..	77 1/2	4 6	5	..	2	...	...	...	...	...	...	...	...	...
Wilcox & Grant.	..	1,000	..	Mules	77 1/2	4 6	5	..	2 Fur.	6	5	250	430	...	...	87 1/2	6,000	...
Walter Treasure.	..	1,000	..	..	77 1/2	4 6	5	..	2	20	6	300	700	...	...	1 00	12,500	1 40
Joseph Collier.	Bartonville	10,000	..	..	77 1/2	4 6	5	..	2	55	2	245	245	...	...	87 1/2	7,200	1 42 1/2
John Gorman.	..	2,000	..	Steam.	87 1/2	4 6	5	..	2	40	4	163	1,600	...	...	1 00	32,140	1 57 1/2
Chapman & Little.	Peoria P. O.	10,000	Sh. ft.	..	87 1/2	4 6	5	..	2 Fan.	85	6	275	1,500	...	...	1 00	27,000	1 57 1/2
Sholl's Mine.	..	4,000	Drift.	..	85	4 6	5	..	2 Fur.	50	10	175	900	...	...	87 1/2	25,342	1 57 1/2
Carter & Sholle.	Holla.	500	..	Mules.	85	4 6	5	..	2	50	10	250	800	...	...	92 1/2	25,000	1 42 1/2
										10	3	100	500	...	...	75	13,000	1 25

Nuesom Bros. Orchard Mines.....	Orchard Mn's	6,000	..	Steam.	75	4½	5	..	2	..	35	6	300	1,100	1	75	87½	23,040	1 31¼
Charles Grandle.....	La Marsh	50	..	Hand.	50	4½	5	..	1	..	7	2	75	70	..	75	1 10	1,500	..
David Roberts.....	..	50	Slope	Mules	65	4½	5	..	1	Fur..	3	1	100	26	..	..	1 00	800	..
James Regan.....	..	20	Drift	Hand.	40	4½	5	..	1	..	4	..	100	8	..	..	1 00	250	..
Thos. Goodwin & Son.....	..	20	..	..	60	4½	5	..	1	..	3	..	100	9	..	..	1 00	280	..
Antonia Polson.....	..	20	..	..	80	4	5	..	1	..	2	..	150	30	..	..	1 00	1,000	..
Henry Oddawalts.....	..	20	..	..	60	4	5	..	1	..	4	..	..	..	..	..	..	150	..
Glasford Coal Co.....	Glasford	12,000	Shaft.	Steam.	120	4½	5	..	1	Fur..	10	6	150	300	..	75	87½	25,000	..
J. P. Wasson.....	Mapleton	..	Drift.	Mule..	100	4½	5	..	1	..	3	..	120	10	..	75	87½	1,940	1 12
James Walker.....	..	..	..	..	90	4½	5	..	2	Fur..	17	2	150	110	..	75	87½	4,320	..
J. J. McNell.....	..	1,000	Slope	..	90	4½	5	..	2	..	10	2	150	300	..	75	87½	9,000	..
A. P. Alexander.....	Glasford	..	Hole.	Hand.	..	4	6	R-P..	1	Nat..	2	..	..	1	..	87½	87½	80	1 40
F. L. Fanestock.....	..	..	Drift.	Mule..	120	4	5	..	1	Fur..	15	15	..	400	..	87½	87½	400	..
Lancaster Mines.....	Lancaster L.	3,000	..	..	..	4	5	..	1	..	35	..	..	..	..	87½	87½	12,000	1 50
Kingston Mines.....	Kingston	Finish'd	..	Mule..	..	4	5	..	1	..	2	..	200	26	..	87½	87½	80	1 50
W. H. Glasford.....	Glasford	..	Hole.	Hand.	..	4.5	6	P-R..	1	..	2	..	..	2	..	..	..	50	1 50
Hannah City Coal Co.....	Hannah City	10,000	Shaft.	Steam.	250	4	6	..	1	St'm	25	4	150	308	3	75	87½	8,120	1 40
Millard & Wooschlag.....	Kickapoo	5,000	Drift.	Mule..	95	4.6	5	..	1	Fur..	20	2	234	600	..	87½	1 00	12,000	1 25
W. Nichols, Woollen, Agt.....	..	..	..	Hand.	95	4.6	5	..	1	Nat..	15	6	225	425	..	75	87½	2,000	1 37½
E. Woollen Lessee and Agt.....	Bartonville	500	..	Mule..	95	4.6	5	..	2	Fur..	..	..	..	..	1 00	..	..	6,000	..
J. Smith, Woollen, Agt.....	..	..	..	..	95	4.6	5	..	2	..	..	..	..	..	..	..	..	800	..
James Burns.....	..	500	Slope	..	75	4.2	5	..	1	Nat..	..	1	150	60	..	87½	87½	1,250	1 37½
James Monroe.....	..	100	2 Drift	Hand.	75	4.6	5	..	2	Fur..	12	2	300	510	..	87½	1 00	10,200	1 37½
Noll & Fender.....	..	200	..	Mule..	85	4.6	5	..	2	..	2	1	300	..	..	87½	..	3,500	1 40
James Day.....	..	200	Drift.	..	120	4.6	5	..	2	..	3	1	300	..	..	87½	..	3,500	..
E. Bros & Bro.....	Lewiston	3,000	2 Drift	..	80	4.6	5	..	2	..	4	3	300	..	..	87½	87½	2,745	1 25
Dennis Mulligan.....	..	300	Drift.	Hand.	80	4.6	5	..	1	..	10	1	250	350	2	87½	93½	6,000	1 25
Fred. Moon.....	..	50	..	..	80	4.6	5	..	2	Nat..	..	..	120	280	..	87½	87½	800	1 25
Cody & McManus.....	..	50	..	..	80	4.6	5	..	2	Fur..	..	..	..	26	..	87½	87½	800	1 40
Barnawalt.....	..	2,000	Shaft.	..	60	4.6	5	..	2	..	5	..	..	60	..	87½	87½	1,800	1 40
Lulay & Co.....	..	..	..	..	..	4.6	5	..	..	..	..	..	..	..	..	..	..	..	..
Thomas Royster.....	..	..	Drift.	Hand.	85	4.6	5	..	1	..	..	..	70	26	..	87½	87½	800	1 40
Isaac Royster.....	..	..	..	..	85	4.6	5	..	1	..	..	..	60	13	..	87½	87½	400	1 40
John Lauck.....	..	..	Shaft	Steam.	50	4.6	5	..	1	Fur..	..	..	200	21	..	87½	87½	640	1 40
Joseph Ramshaw.....	Trivoli	..	..	Horse.	49	4.6	5	..	1	L'imp	..	..	..	13	..	..	..	400	1 40
G. W. Longdon.....	Brimfield	100	Drift.	Mule..	80	4.6	6	..	1	Nat..	..	..	..	33	..	..	..	1,000	1 40
James Pemble.....	..	400	Shaft.	Horse.	18	4.5	6	..	1	..	..	..	..	40	..	..	..	1,200	1 40
J. M. Lewis.....	Princeville	200	..	..	32	3	4	..	1	..	..	..	..	40	..	..	..	1,200	1 40
G. W. Smith.....	White Oak	500	Slope	..	..	5	..	..	1	..	..	..	..	26	..	..	..	800	1 40
Woodford.....	Brimfield	..	..	..	..	..	6	..	1	..	..	..	..	33	..	..	..	1,000	1 40
Killor.....	..	..	..	..	..	..	6	..	1	..	..	..	..	40	..	..	..	1,200	1 40
Hindle.....	..	..	..	..	..	..	6	..	1	..	..	..	..	16	..	..	..	500	1 40
Totals.....	..	\$183,980	..	..	..	..	..	..	..	..	565 1,024	148	8,700	17,260	7	\$0.87	\$0.92½	452,078	\$1.29

STATISTICS OF LABOR.

TAZEWELL COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.										EMPLOYES.						PRODUCT.		
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam ...	Long-wall, or pillar and room workings.....	No. of places of egress...	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd		No. of other employes in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year	No. of men injured (so as to lose time).	Price per ton paid for mining.		No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....
										Winter.....	Summer.....						Winter.....	Summer.....			
D. M. Alexander.....	Pekin	\$6,000	Shaft.	Steam.	120	4	5	R. P.	2	Fan..	13	30	7	200	480	..	..	\$0 87½	\$1 00	11,000	\$1 62
Victor Mine. Rundle & Gold.....	"	2,000	"	Horse.	130	4	5	"	2	Fur'e	8	10	2	200	250	..	..	87½	1 00	6,000	1 50
John B. Ledderman ..	"	2,000	"	S. & H.	98	4	5	"	2	"	4	8	..	247	146	1	..	87½	1 00	2,480	1 50
Ruche Bros.....	Hilton	500	Slope	Mule..	100	4	5	"	2	"	..	3	..	160	48	..	..	..	1 00	864	1 50
George Millard	"	2,500	Shaft.	Horse.	95	4	5	"	1	"	..	3	1	150	33	..	..	87½	87½	1,000	1 50
J. G. Vogelsang.....	"	1,000	Drift..	Mule..	60	4	5	"	2	"	..	7	..	200	250	1	..	1 00	1 00	1,800	1 50
N. C. Hawley	Pekin	6,000	Shaft.	Steam.	75	4	5	"	2	"	15	30	3	150	48	..	..	87½	87½	10,000	1 50
Union Mines. Dissman's	"	2,000	"	Horse.	100	4	5	"	2	"	..	4	..	..	..	..	..	87½	1 00	446	1 50
Totals .....	.....	\$22,000	.....	.....	.....	.....	.....	.....	.....	.....	40	95	13	1,307	.....	2	2	\$0 87½	\$0 97	33,590	\$1 57

VERMILION COUNTY—1884.

Name of firm company, or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYER.						PRODUCT.					
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and room workings.	No. of passages of egress.	Ventilation by fan, furnace or otherwise?	Number of miners employed.	No. of other employees, in and about mine.	No. of days worked during the year.	No. of kegs of powder used during the year.	No. men killed during year.	No. of men injured (so as to lose time).	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at mine.

Vermilion County—Continued.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYEES.						PRODUCT.				
			Drift, slope or shaft.....	Steam, horse or hand-power	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches	Geological No. of seam	Long-wall, or pillar and room workings	No. of places of egress.	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	Winter.....	Summer.....	No. of men injured (so as to lose time)	No. men killed during year	No. of kegs of powder used during the year.....	No. of days worked during the year.....	No. of other employes, in and about mine.....	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....

*Erecting a mining machine.

WOODFORD COUNTY—1884.

Name of firm, company or individual oper- ating mine.	Town or post- office nearest the mine.	Capital em- ployed.	CHARACTER OF PLANT.							EMPLOYES.						PRODUCT.			
			Drift, slope or shaft.....	Steam, horse or hand- power.....	Depth of coal below the surface—feet	Thickness of coal—feet and inches.....	Geological No. of seam....	Long-wall, or pillar and room workings.....	No. of places of egress	Ventilation, by fan, fur- nace or otherwise?.....	Number of miners employ'd	No. of other employes, in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year.	No. of men injured (so as to lose time).....	Price per ton paid for mining.	Winter	Summer .....	No. of tons of coal pro- duced (including nut coal).	Average value of coal per ton at the mine.....
Chicago and Minonk Coal and Coke Co.....	Minonk.....	\$30,000	Shaft.	Steam.	553	2-3	2	L. W.	2	Fan..	200	275	20	1	2	\$0 87½	\$0 87½	125,000	\$1 50
Roanoke Mining Co....	Roanoke....	30,000	..	..	480	2-6	2	..	1	Fur..	15	180	150	..	3	1 10	1 25	4,000	1 50
Total .....	.....	\$60,000	.....	.....	.....	.....	.....	.....	.....	.....	215	425	170	1	5	\$0 97½	\$1 06¼	129,000	\$1 50

GREENE COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYES.				PRODUCT.									
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam.....	Long-wall, or pillar and room workings.....	No. places of egress.....	Ventilation, by fan, furnace or otherwise?.....	No. of other employes, in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year.....	No. of men injured (so as to lose time).....	Price per ton paid for mining. Winter..... Summer.....	No. of tons of coal produced (including nut coal.)	Average value of coal per ton at the mine.....		
Thomas Carter.....	Roodhouse.....	\$1,000	Shaft.	Horse.	40	2.4	1	P. R.	2	Fur..	5	Winter.....	2	300	.....	.....	.....	\$1 00	3,100	\$1 75
Whitehall Fire Clay W's.	Whitehall	1,000	Drift..	..	40	2.4	1	..	2	..	9	Summer.....	1	300	.....	.....	.....	1 12½	5,400	1 75
Wm. Carrollton.....	Roodhouse	50	..	..	..	2.4	1	..	2	..	3	..	..	300	.....	.....	.....	1 12½	1,800	1 75
Felix Brown .....	..	75	..	..	..	2.6	1	..	2	..	2	..	..	228	.....	.....	.....	87½	820	1 50
John Knots .....	..	75	..	..	..	2.8	1	..	2	..	2	..	..	220	.....	.....	.....	1 00	800	1 75
G. H. Newton .....	..	150	Shaft.	Horse.	22	2.4	1	..	2	..	2	..	..	240	.....	.....	.....	1 00	800	1 50
Joseph Lowther.....	..	150	..	..	23	2.6	1	..	2	..	2	..	..	300	.....	.....	.....	1 00	1,520	1 75
John Johnson .....	..	150	..	..	30	2.6	1	..	1	..	2	..	..	300	.....	.....	.....	1 00	1,500	1 75
Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27	.....	3	2,188	.....	.....	.....	\$1 01	15,840	\$1 72½

* This is a new shaft, just opening out.

JASPER COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.		EMPLOYES.				PRODUCT.	
			Ventilation, by fan, furnace or otherwise?.....	2 Fur..	No. of men injured (so as to lose time).....	..	Price per ton paid for mining.	Winter	No. of tons of coal produced (including nut coal)	\$2 00
			No. of places of egress.....	2 P. R.	No. men killed during year	..		Summer.....	10,000	\$1 00
			Long-wall, or pillar and room workings.....	3 ..	No. of kegs of powder used during the year.....	40				\$1 00
			Geological No. of seam....	3 ..	No. of days worked during the year.....	300				
			Thickness of coal—feet and inches	90	No. of other employes, in and about mine.....	3				
			Depth of coal below the surface—feet.....	Horse.	Number of miners employ'd	15				
			Steam, horse or hand-power.....	Slope	Winter.....	6				
			Drift, slope or shaft.....		Summer.....					
F Nigh.....	Newton.....	\$5,000								

MACON COUNTY--1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.		EMPLOYEES.							PRODUCT.						
					Ventilation, by fan, furnace or otherwise?	No. of places of egress.....	Long-wall, or pillar and room workings.....	Geological No. of seam	Thickness of coal—feet and inches.....	Depth of coal below the surface—feet	Steam, horse or hand-power	Drift, slope or shaft.....	No. of men injured (so as to lose time).....	No. men killed during year	No. of kegs of powder used during the year.	No. of days worked during the year.....	No. of other employees, in and about mine	Number of miners employ'd	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....
Decatur Coal Co.....	Decatur	\$75,000	Fan..	1	L. W.	612	4.4	370	Steam.	Shaft.	3	300	100	50	300	\$0 70	95,800	\$1 40
											..	223	1,120	10	223	65	24,670	1 20
Niantic Coal & Min. Co..	Niantic	40,000	..	1	P. R.	5	5.6	370	..	..	3	523	1,220	60	523	\$0 67½	120,470	\$1 36
Totals.....	.....	\$115,000	.....	..	.....	.....	.....	.....	.....	.....	3	523	1,220	60	523	\$0 67½	120,470	\$1 36

These two mines are sinking escapement shafts.

MACOUPIN COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYEES.				PRODUCT.								
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and room workings.	No. of places of egress.	Ventilation, by fan, furnace or otherwise.	Number of miners employed.	No. of men injured (so as to lose time).	No. men killed during year.	No. of kegs of powder used during the year.	No. of days worked during the year.	No. of other employees, in and about mine.	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at the mine.
										Winter	Summer								
Ellsworth Coal & M. Co.	Staunton	\$100,000	Shaft.	Steam.	325 7 0	280 6 6	P. R.		2 Fan.	225	40	237	974	2	1	4	\$0 75	165,002	\$1 90
No. 5 Colliery	"	110,000	"	"	322 7 0	280 6 6	"		"	250	30	241	1,317	1	2	1	75	195,313	1 00
No. 6	"	100,000	"	"	300 7 6	280 6 6	"		"	60	20	256	493	1	2	2	"	72,120	1 00
*No. 7	Mount Olive	40,000	"	"	402 8 0	325 7 0	"		1 C. F.	57	14	160	325	"	"	"	60	44,000	1 00
No. 8	"	53,000	"	"	416 8 0	325 7 0	"		2 Fur.	45	16	204	280	"	"	"	60	51,000	1 00
No. 9	"	54,000	"	"	420 8 0	325 7 0	"		2 Fur.	125	19	210	500	"	"	"	60	105,000	1 00
No. 10	"	75,000	"	"	383 7 0	280 6 6	"		1 Fan.	50	13	225	280	"	"	"	75	35,350	1 00
*Anchor Coal Co.	Staunton	2,500	"	H. P.	220 5 6	280 6 6	"		1 Nat'l	3	1	220	16	"	"	"	75	3,520	1 00
D. W. Kelly	Bunker Hill	25,000	"	Steam.	250 5 6	280 6 6	"		2 Fan.	25	8	310	350	2	"	"	70	22,300	1 15
Bunker Hill Coal Co.	"	1,000	"	H. P.	150 5 6	280 6 6	"		2 Fur.	2	1	300	6	"	"	"	87 1/2	4,840	1 50
Raynor & Lock	Gillespie	75,000	"	Steam.	346 7 6	345 7 6	"		2 Fan.	85	15	225	800	"	"	"	60	90,210	1 00
B. L. Hargreave & Sons	"	80,000	"	"	345 7 6	390 7 6	"		2 Fan.	115	14	240	1,372	"	"	"	60	119,120	1 00
Gillespie Coal & Min. Co.	Hornaby	100,000	"	"	390 7 6	390 7 6	"		"	48	12	240	320	"	"	"	"	60,000	1 00
*York Bros. & C. & Min. Co.	"	"	"	"	"	"	"		"	"	"	"	"	"	"	"	"	"	"
Farrell & Funt	Carlisle	35,000	"	"	280 6 6	280 6 6	"		1 Nat'l	30	4	108	47	"	"	"	75	12,700	1 10
*No. 1 Colliery	"	25,000	"	"	280 6 6	280 6 6	"		"	20	3	82	26	"	"	"	75	6,560	1 10
No. 2	"	6,000	"	"	230 7 0	230 7 0	"		"	10	3	210	200	"	"	"	60	9,760	1 25
H. Bartels & Son.	Nilwood	30,000	"	H. P.	325 7 0	325 7 0	"		2 Fur.	15	5	215	270	1	"	"	75	16,900	1 25
Dennis Noonan	Girard	35,000	"	Steam.	357 7 3	357 7 3	"		2 Fur.	60	15	290	527	"	"	"	75	52,000	1 25
Girard Coal & Min. Co.	Yiriden	40,000	"	"	320 7 6	320 7 6	"		2 Fan.	90	25	300	725	"	"	"	75	73,204	1 10
J. W. Utt	Medora	30,000	"	"	240 2 10	240 2 10	L-W.		2 Fan.	18	7	275	60	"	"	"	1 25	16,440	1 05
Medora Coal & Min. Co.	Chesterfield	30,000	"	"	240 2 10	240 2 10	L-W.		2 Fan.	15	7	262	10	"	"	"	1 25	13,130	1 05
Chesterfield	Fayette	200	"	H. P.	20 4 0	20 4 0	L-W.		2 Fur.	35	4	90	"	"	"	"	95	1,000	1 75
Dorris Davis	Chesterfield	200	Drift.	Hand.	20 4 0	20 4 0	P. R.		2 Fur.	2	1	210	"	"	"	"	87 1/2	2,000	1 90
Bellby & Co.	"	"	"	"	6 0	6 0	"		"	"	"	"	"	"	"	"	87 1/2	"	"
Totals		\$1,045,200								1,010	274	5,112	8,890	6	21	24	\$0 67	1,164,409	\$1 90

* Machine mines; miners paid by the day.
 † Stopped for not having escapement shafts.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYES.						PRODUCT.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
			Drift, slope or shaft	Steam, horse or hand-power	Depth of coal below the surface—feet.	Thickness of coal—feet and inches	Geological No. of seam	Long-wall, or pillar and room workings	No. of places of egress....	Ventilation, by fan, furnace or otherwise?	No. of days worked during the year	No. of kegs of powder used during the year	No. men killed during year	No. of men injured (so as to lose time)	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
			Shaft.	Steam.	146	6.8		P. R.	2	Fan.	110	28	260	850																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

Madison County—Continued.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYES.						PRODUCT.			
			Drift, slope or shaft.....	Steam. horse or hand-power	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.	Geological No. of seam	Long-wall, or pillar and post workings	No. of places of egress	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	No. of other employes, in and about mine.....	No. of days worked during the year	No. of kegs of powder used during the year.....	No. men killed during year	No. of men injured (so as to lose time)	Price per ton paid for mining.	Winter	Summer.....	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine .....
James Mitchell.....	North Alton..	\$1,000	Shaft.	Horse.	93	2.6	..	P. R.	2	Fur..	15	1	275	..	..	\$0 87½	\$1 00	4,200	\$1 75
Nathan Sydel.....	..	1,000	..	..	87	2.6	..	..	2	..	14	1	278	..	..	87½	1 00	3,820	1 75
Alex. McDonald, Jr.....	..	500	..	..	70	2.6	..	..	1	Nat'l	8	2	250	..	..	87½	1 00	800	1 75
Henry Molloy	400	..	..	40	2.6	..	..	1	..	6	1	180	..	..	87½	1 00	620	1 75
Totals	\$499,650	.....	.....	.....	.....	.....	.....	.....	.....	833	124	6,590	5,181	3	\$0 70	\$0 78½	560,636	\$1 05½

MORGAN COUNTY—1884.

[illegible]

*This shaft was abandoned October, 1883.

*This shaft was abandoned October, 1883.
†This is a new shaft - commenced operations July 1, 1884.

†This is a new shaft; commenced operations July 1, 1884.
 †This is a new shaft; commenced operations July 1, 1884.
 †This is a new shaft; commenced operations July 1, 1884.

STATISTICS OF LABOR.

MONTGOMERY COUNTY—1884.

Name of firm, company, or individual oper- ating mine.	Town or post- office nearest the mine.	Capital em- ployed.	CHARACTER OF PLANT.							EMPLOYES.				PRODUCT.						
			Drift, slope or shaft.....	Steam, horse or hand- power	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches	Geological No. of seam....	Long-wall, or pillar and room workings	No. of places of egress.....	Ventilation, by fan, fur- nace or otherwise?	Number of miners employ'd	No. of other employes, in and about mine	No. of days worked during the year	No. of kegs of powder used during the year.	No. men killed during year	No. of men injured (so as to lose time)	Price per ton paid for mining.	Winter	Summer	No. of tons of coal pro- duced (including nut coal)	Average value of coal per ton at mine .....
Litchfield Coal Co.....	Litchfield	\$10,000	Shaft.	Steam.	505	3 6 4	L. W.	2	Fur'e	10	20	5	275	120	1		80c	80c	10,717	\$1 50

Two prospecting holes were bored in this county at Raymond by J. W. Beverly, of Litchfield, one 750 feet. At 440 feet he found four feet of coal, very soft; at 598 feet he found salt water, and at 750 feet salt water. The second hole was bored 450 feet; at 440 he found 3 ft. 10 in. coal. There was 10 feet of black slate on top of the coal in both holes. The black slate was very soft.

SCOTT COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.										EMPLOYES.						PRODUCT.	
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year.....	No. of men injured (so as to lose time).....	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....		
									Winter	Summer.....										
Wm. H. Bates & Co.....	Winchester...	\$6,000	Shaft.	Steam.	100	2.6	1	P. R.	25	22	300	285	\$1 25	7,648	\$1 75			
*David Alcorn.....	"	100	"	Hand..	20	2.6	1	"	1	1	90	..	..	1 25	150	2 00		
+Charles Poole.....	"	100	"	Horse.	30	2.6	1	"	2	..	90	..	..	1 25	200	2 00		
John Stewart.....	"	100	Slope.	Hand..	10	2.6	1	"	1	..	265	..	..	1 25	360	2 00		
Robinson & McGuire.....	"	200	Drift..	"	..	2.6	1	"	4	..	200	..	..	1 25	800	2 00		
George C. Marquette.....	"	100	Shaft.	Horse.	15	2.6	1	"	5	..	260	..	..	1 25	672	2 00		
Isaac Carrolton.....	"	100	Drift..	Hand..	..	2.6	1	"	2	..	200	..	..	1 25	800	2 00		
John Brady.....	Alsey	100	"	"	..	2.6	1	"	1	..	90	..	..	1 25	150	2 00		
Totals .....	.....	\$6,800	.....	.....	.....	.....	.....	.....	51	83	1,495	.....	.....	\$1 25	10,280	\$1 81½

*This shaft has been abandoned.
+This is a new shaft; will have an escapement shaft by January 1, 1885.

SHELBY COUNTY—1884.

Name of firm, company or individual oper- ating mine.	Town or post- office nearest the mine.	Capital em- ployed.	CHARACTER OF PLANT.				EMPLOYES.				PRODUCT.									
			Drift, slope or shaft.....	Shaft.. Horse.	Steam, horse or hand- power	Depth of coal below the surface—feet.	Thickness of coal—feet and inches	Geological No. of seam...	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, fur- nace or otherwise?.....	Number of miners employ'd	No. of other employes in and about mine.....	No. of days worked during the year	No. of kegs of powder used during the year.....	No. men killed during year	No. of men injured (so as to lose time)	Price per ton paid for mining.	Winter	Summer.....	No. of tons of coal pro- duced (including nut coal)	Average value of coal per ton at the mine .....
John Richardson.....	Shelbyville...	\$1,000	..	..	..	95	2	15	P. R.	2	Fur.	6	14	250	..	..	\$1 75	1 75	2,025	\$2 75
Kurtz & Nolan.....	Robins'n Cr'k	1,000	..	..	..	90	2	15	..	2	..	4	12	246	..	..	1 75	1 75	1,402	2 75
John Minto	Shelbyville...	800	..	..	..	60	2.4	15	..	2	..	3	5	230	..	..	1 75	1 75	1,214	2 75
Michael Brophy.....	..	800	..	..	..	90	2	15	..	2	..	2	4	240	..	..	1 75	1 75	1,024	2 75
Wm. Wilhelm.....	..	600	..	..	..	50	2	15	..	2	..	..	3	120	..	..	1 75	1 75	360	2 75
York & Hilsabeck	Fancher.....	1,000	..	..	..	50	2	15	..	2	..	8	20	280	..	..	1 10	1 10	4,180	1 60
Totals.....	.....	\$5,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	23	58	1,366	.....	.....	\$1 64	\$1 64	10,205	\$2 27

CALHOUN COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.		EMPLOYERS.		PRODUCT.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
			Drift, slope or shaft.....	Steam, horse or hand-power.....	No. of men injured so as to lose time.....	No. men killed during year.....	No. of tons of coal produced (including nut coal).....	Average value of coal per ton at the mine.....																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Thomas Mines.....	Brussels.....	\$50,000	Drift..	Mule.....	26	26	P. R.	2	Fan

This mine is located at Thomas Landing, on the Mississippi River. There is a fine plant located for the crushing of the coal and washing machinery. There is a manager's house, two boarding houses, fifty-nine tenement houses, one store, school house, two barns and blacksmith shop. Engines and boilers are well housed. There are a number of mine cars, coke cars, trucks, coal and coke sheds. When the work comes down in December, 1882, there were 40 men employed. They employed about 100 men the most of the season. There has been nothing done at the works from July 1, 1883 to July 1, 1884 except to take 160 tons out of the mine for local use. There are fifty coke ovens. The company worked under the "bee-hive" process in manufacturing coke—crushed and washed the coal. The works are owned by W. G. Thomas. J. Fowler is the local agent.

RECAPITULATION BY COUNTIES.

Counties.	Capital em- ployed.	Acreage.....	No. of mines.....	No. of mines shipping coal	No. of mines, local.....	Kinds of power employed		Kinds of openings.		Modes of working coal, pillar and room, long wall, single and double entry.				No. of miners and other employees.			Average No. of days worked ..	No. of kegs of powder used....	No. of men killed.....	No. of men injured so as to lose time.....	Average price per ton for mining.		No. of tons of coal produced, including nut.....	Average price of coal per ton at the mines.....	No. of mines with escapement shaft.	No. of mines without escape-ment shaft.....	Kinds of power used for venti-lation.
						Hand power.	Horse power	Steam.....	Drift	Slope	Shaft.....	Miners, winter	Miners, summer ..	Other em- ployes.....	Summer.....	Winter.....											
Coles.....	\$100,000	500	1	1	1	1	1	1	1	1	1	1	18	75	50	240	252	1	1	\$0 90	\$0 90	54,000	\$1 25	1	1	Natural.....	
Edgar.....	50,000	500	1	1	1	1	1	1	1	1	1	6	55	40	256	256	1	1	1 00	1 00	21,720	1 45	1	1	Steam jet...		
Greene.....	2,725	390	9	1	9	5	4	4	9	1	1	3	27	15	300	*273	40	1	1 01	1 00	15,840	1 72½	8	1	Furnace.....		
Jasper	5,000	160	1	1	1	1	1	1	1	1	1	3	15	6	300	40	1	1 00	1 00	10,000	2 00	1	1	Fan			
Jersey	2,500	150	5	1	5	1	4	4	1	5	1	1	12	8	176	1,220	1	1 00	1 00	2,920	1 75	5	1				
Macon	115,000	1,400	2	2	2	2	1	1	1	1	1	60	175	130	261	1,220	3	77½	77½	120,470	1 96	2	2				
Macoupin ..	1,045,900	7,870	23	18	5	18	1	1	2	9	12	1,010	1,510	274	222	8,880	8	78	78	1,164,409	1 06	17	6				
Madison.....	499,650	2,793	29	13	16	13	1	22	23	24	5	575	833	124	227	5,181	3	78½	78½	550,636	1 05½	18	11				
Morgan.....	24,000	300	2	2	2	2	2	2	2	2	2	4	20	10	275	120	1	80	80	2,500	1 50	2	2				
Montgomery.	10,000	30	1	1	1	1	1	1	1	1	1	10	20	5	275	120	1	80	80	10,717	1 50	1	1				
Sangamon..	597,000	6,110	15	15	1	15	15	15	15	2	13	665	1,187	248	+270	26,535	1	75	75	820,326	1 17	13	2				
Scott.....	6,800	352	1	1	8	1	4	3	8	7	1	33	51	10	187	285	1	125	125	10,280	1 81½	6	2				
Shelby.....	5,200	87	6	6	6	6	6	6	6	6	6	23	58	10	228	285	1	164	164	10,205	2 27	6	1				
Calhoun....	50,000	80	1	1	1	1	1	1	1	1	1	1	1	1	228	285	1	1 00	1 00	160	1 25	1	1				
Totals.	\$2,455,775	20,722	104	53	51	54	36	14	88	3	13	2,581	4,018	763	1243	42,513	9	93	\$0 94½	\$0 97½	2,804,183	\$1 12½	77	27	28	23	

* Average for eight mines in Greene county.

+ Average for thirteen mines in Sangamon county.

† Average for ninety-eight mines in Fourth District.

FIFTH DISTRICT.

MR. J. S. LORD, *Secretary of the Bureau of Labor Statistics of Illinois* :

SIR—I have the honor to submit herewith my report as Inspector of Coal Mines for the Fifth District, which embraces the lower extremity of the State, south of and including St. Clair county, for the year ending July 1, 1884.

During the year the coal trade has been unsettled and subject to serious disturbances, owing to floods on the one hand, and fluctuations in freight rates to the St. Louis market on the other. This rate was at one time as low as 12½ cents a ton to all shippers within a radius of 18 miles from St. Louis. This led to such competition for that trade that coal was in some instances sold and delivered to retail consumers in that city as low as \$1.75 per ton.

Many operators outside that radius were accordingly obliged to shut down. Everywhere there was reduction of expenses and of the prices of mining. Machine mining was stimulated, and many miners, especially from the vicinity of Belleville, left the district altogether.

On the other hand, the unusually high water of the Ohio river last spring caused the suspension of the mines in Gallatin and Saline counties, and floods impaired the business of Perry county.

Notwithstanding these vicissitudes, and possibly on account of the stimulus they afforded, the aggregate output of the district is somewhat greater for this year than any previous year,—the gain being principally in St. Clair county.

Number of tons mined in the district in 1883.....	1,990,921
Number of tons mined in the district in 1884.....	2,128,230
Increase.....	137,309

I have to report, as a result of my labors in this field, the sinking of 23 escapement shafts. Though some of them are not yet completed, they are in progress, and will soon afford the additional openings contemplated by law. Nine air shafts have been remodeled so as to constitute available places of egress for the men; and underground communication has been established between adjacent mines in three instances for the same purpose. There have been erected during the year 14 fans for the better ventilation of mines—10 in St. Clair county, 2 in Perry, 1 in Washington, and 1 in Marion.

Twenty-eight indictments have been found against mine operators in this district for failure to comply with the law requiring the coal of each miner to be weighed at the mines. In twenty instances the parties were fined; seven cases were taken up to the Appellate Court, and one to the Supreme Court of the State, from neither of which have decisions yet been rendered.

Fifty-two accidents have occurred to miners during the year, 8 of which were fatal. For the year last preceding there were 59, of which 20 were fatal. The causes of the several casualties this year were as follows:

FATAL ACCIDENTS.

Falling of coal.....	7	
Being caught by cage.....	1	
	—	8

NON-FATAL ACCIDENTS.

Falling of coal.....	8	
Falling of roof.....	12	
Premature blasts.....	7	
Explosions of gas.....	6	
Explosions of powder.....	2	
Hurt by cars.....	4	
Miscellaneous.....	5	
	—	44

This shows that 87 per cent. of the fatal accidents, and 45 per cent. of the non-fatal accidents, or 52 per cent. of casualties of all kinds in and about the mines of this district, have resulted from the fall of overhanging rock or coal, which should be held in place by props set by the miner.

One life has been lost for every 266,029 tons of coal mined during the year.

There has been a good deal of conflict and bitterness for several years in the St. Clair district occasioned by the use of mining machines, and the hand-miners, by working the coal for very low prices, have hoped to demonstrate that the machines could not be profitably used. In this way prices for mining have run down from 50 cents a ton as low as 28 cents. Regular miners have also refused to recognize the machines by accepting work on them, and the owners have retaliated by refusing to put the regular miners on, and have employed others for the machines and for blasting and hauling the coal, all of which has aggravated the feeling of miners against the machine mines, and their owners, and the men they employ. This condition of things is alike unfortunate for owners and miners, as the miner needs the work even if it be with a machine, and the operator needs the skill of the trained miner to successfully work his coal.

Popular sentiment, however, is rather with the miners than the owners, and physicians have pronounced the effect of the compressed air upon the machine operators to be injurious to health.

During the summer a movement was set on foot to establish a living rate of wages for the hand-miner, but after several conferences and a failure to agree, the men finally went to work for a cent and a half a bushel. Subsequently, however, the owners advanced this rate to a cent and three-quarters per bushel, or $43\frac{3}{4}$ cents per ton, which is now the ruling price for hand-mining.

Accompanying this I submit my notes on the different mines in each county, a detailed record of the casualties which have occurred, and such tables of statistics of the production of coal, etc., as are required by law.

Very respectfully,
 ROBERT WINNING,
Inspector 5th District.

ST. CLAIR COUNTY.

THE ABBEY COAL Co.

This company is extensively engaged in mining on the line of the Vandalia railroad, and have several shafts in the vicinity of Caseyville, St. Clair county, and Collinsville, Madison county. Those in St. Clair county are the No. 1 and No. 5. The Springwell mine and No. 2 are now abandoned as hoisting shafts, the coal from those workings being taken out at the No. 1 shaft. The coal is worked on the single-entry system, the entries being $16 \times 6\frac{1}{2}$ feet.

On my first visit, in November last, the company had 80 men and 8 mules at work, but in the succeeding April this force was reduced to 15 men and 3 mules. The mine is well ventilated, having 11,700 cubic feet of air in circulation in two "splits."

Joseph Higginbotham, Underground Manager.

The No. 5 mine of the Abbey company is worked wholly with mining machines, and has been from the time it was originally opened. It is laid out on the single-entry plan. The roof requires an unusual amount of timbering, from the fact that there is from 6 to 8 feet of slate overlying the coal. The Harrison improved mining machines are used, and the men working them are the most skillful operators I have seen in the district. The labor in these works is divided in the following manner: There are seven machines, with a skilled operator for each, and with each of these there are two helpers, making 21 men handling 7 machines. These make employment for 7 drillers and blasters, 40 loaders, 6 drivers, 3 trappers, 2 cagers, 2 roadmen, 1 dumper, 2 car trimmers, 1 slack shoveler, 7 timberers, 1 fireman, 1 blacksmith, and 1 prop-cutter. All the men are paid by the day. Machine men, timberers and blasters receive \$2.25, and shovelers and loaders \$1.75 per day. A ventilating fan has been erected here, which has increased the amount of air in circulation from 4,680 to 21,340 cubic feet per minute. The company has endeavored to comply with the requirements of the law, and their works are in good shape.

William Fletcher, Superintendent; Caleb Davis, Underground Manager.

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THE PROVIDENCE MINE.

This mine was connected by side-track with the Vandalia road, and operated by Messrs. Miller, Daniels & Co. At a distance of 186 feet from the bottom of the shaft they encountered a fault, when the roof gave way, and precipitated a body of sand into the mine, which flowed with such force and rapidity as to fill 40 yards of entry 12 feet wide by $4\frac{1}{2}$ feet high in 30 minutes. Subsequent efforts to tunnel through the fault were ineffectual, and the property was abandoned.

JOSEPH MORRIS' MINE

Is on the Ohio and Mississippi railroad, between O'Fallon and Lebanon. It was opened originally on the single-entry system, but is being changed to that of double-entry, the proprietor claiming as a reason for the change that double-entries cost less in the long run, gave the mine better ventilation and the men better satisfaction. He had a working force of 52 men and boys underground, and 4 on the top. I found a very small amount of air in the passages, owing to a recent fall of rock in the return air course. This was satisfactorily cleared up.

THE BENNETT MINE.

This is about a mile east of the preceding, and is owned and operated by Mr. Jeremiah Bennett. The coal in this and the Morris mine is of better quality than that of other mines in the vicinity, and commands a better price in the market. This is a double-entry mine, employing 38 people underground. On my first visit I found some gas in the workings, and a feeble current of air; but by cleaning up and widening the return air-way, succeeded in doubling the volume of air and dissipating the gas. There was no escapement outlet to this mine except through the air-shaft in which the furnace was located. The proprietor has undertaken to remedy this state of things, and may proceed to sink another shaft.

THE LEBANON MINE.

This place is also on the Ohio and Mississippi railroad, at Lebanon, and is owned and operated by Gustave Weisberger. The shaft was sunk a year ago, under many difficulties. At a depth of 26 feet, 12 feet of quicksand was encountered; and again, at a depth of 50 feet there was found 30 feet more of quicksand producing 120 gallons of water per minute. With this experience with the strata, they have not yet undertaken to sink an escapement.

In April there were 17 men at work in the mine, which was ordinarily ventilated by exhaust steam from the pump, but as that was undergoing repairs, there was no current perceptible.

THE SUMMERFIELD MINE.

This is also on the Ohio and Mississippi railroad. There were only 3 men at work in it at the time of my visit, and there was no attempt at ventilation. The property has changed hands three times since I came into the field, and as it is necessary that an escapement shaft should be sunk at once, it may continue to change.

JOSEPH TAYLOR'S MINE

is situated at Alma, or Ridge Prairie, and is one of the old mines of the Gartside Coal Co., the other at this place having been abandoned. The present proprietor bought the remnant of coal in these old workings, the use of plant, etc., and is getting what he can out of them, with a force of 43 employés in the works. At both of my visits the air at the working faces was unavoidably bad, owing to the extent and irregularity of the old workings and the accumulations of old refuse. I advised taking the pillars in sets from the face backwards, as a means of insuring better air-ways.

James Conroy, a blind miner well known throughout the field, was badly hurt at this place while drilling out a shot which had missed fire. His injuries were thought to be fatal, but he recovered, and has given up mining.

THE VANCOURT MINE.

This mine is situated on the Ohio and Mississippi railroad at O'Fallon, and at my first visit was operated by B. W. Williamson. I found the place in very bad condition, and ordered extensive repairs, especially on the shaft, which subsequently caved in. In February a co-operative company of miners took the property, and have made good progress in excavating and retimbering the shaft, and have promised to put the place in good condition.

THE GARTSIDE COAL CO.

This company operates two mines, located on the Ohio and Mississippi railroad at Ridge Prairie, and known as the "Cross-Roads" and "Mentor" mines.

The Cross-Roads is an old mine, wrought on the double-entry plan, which gives employment to 65 men inside. The coal is mined with 5 Harrison machines. There is no escapement shaft, but an entry is being driven to connect the working with the company's mine adjoining.

The Mentor mine is a new mine, the shaft having been completed in June last. In November they were still working at the bottom, having just started cross-entries, one of which is to make the connection with the old mine, thus affording not only the necessary escapement for both, but a gallery for conducting the pipes conveying air from the compressor to the machines of both mines.

William Mellett, Superintendent.

THE EMMETT MINE.

This mine is on the Louisville and Nashville railroad. It was found in good condition, employing 28 men, to whom over 5,000 cubic feet of air per minute was distributed. This force has since been reduced until the engineer is able to do all the hoisting and dumping, and then trim the cars.

THE REINECKE MINE No. 2.

This property is located contiguous to the Belleville Nail Mill, and supplies that establishment with coal, which is delivered direct from the mine in pit cars to the mill. The miners at this place put a check-weighman at the top to inspect the weighing of the coal, and the proprietor thereupon removed his weighmaster, leaving the whole matter in the hands of the representative of the men.

Twenty-five men were employed underground at the time of inspection. A good volume of air was passing in the main entries, but still it was deficient in some of the rooms, and the attention of the pit-boss was called to it, with instructions to correct the evil.

YOCK BROS. MINE.

This is a single-entry mine, with entries 30 feet wide. It is connected with a foundry and machine shop owned by the same parties, who are the patentees and manufacturers of the Yock mining machines. The mine is worked with these machines, and gives employment to 65 men underground. All men are paid by the day. The blaster and loader work together, and receive \$4.40 for 24 boxes of coal, which is considered a day's work. The boxes contain 22 bushels. The air-ways are $10\frac{1}{2} \times 5\frac{1}{2}$ feet, and the volume of air passing measured 7,623 cubic feet per minute.

HAZZARD & EMORY, BELLEVILLE.

This is also a single-entry mine, employing 15 miners. At the time of my visit the air was being turned so as to thaw the ice out of the hoisting shaft, and since then I have had no opportunity to give it a personal inspection. Miners report good air and a good escapement. Mr. Emory, Sup't, looks after this place, and also the mines of the same parties on the Cairo Short-line.

A. OGDEN & SON, RENTCHLER.

These parties are operating a small single-entry mine, employing about 20 men. They ventilate with a furnace, and had an abundance of air. One or the other of the firm runs the engine. I have not been able to visit any of the mines on this road more than once.

RENTCHLER COAL CO.

This company employs about 10 miners, and shows a good volume of air in the workings. The coal is weighed at the bottom by the cager before it is hoisted, and the engineer dumps it and trims the cars. This company has only been in operation since last December.

WILLIAM CRAWSON & SONS, RENTCHLER.

These parties employ about 20 men, and are spoken well of by them. The volume of air is somewhat more than 100 cubic feet to the man. The scales at this place are also at the bottom of the

shaft, and they have a boy for the weighmaster, but he understands his business and gives entire satisfaction to all parties.

The escapement shaft is in fair condition. One of the sons is pit-boss.

THE MASCOUTAH MINE.

This place was condemned for want of escapement shaft, and as the proprietors of the mine and the proprietors of the land could not agree as to who should sustain the cost of sinking it, the mine was abandoned. It was operated solely to supply a local demand.

CONRAD REINECKE, MINE No. 1.

This mine is at Birkner Station. It is a machine mine, having eight Harrison machines in operation, and giving employment to 50 men underground, who are all paid by the day. The machine men are paid 4 cents per lineal foot on the face of the coal, the cut being 4 feet deep, and they average \$2.80 a day. Shovelers and loaders receive \$1.75 per day—the day's work being 24 cars, containing 18 bushels each. Blasters receive \$2.25 a day, the powder being furnished by the company. The air is split into two currents, showing 3,560 and 3,165 cubic feet per minute, respectively. A fan has been erected to supersede the furnace so as to permit of ladders in the air shaft for the escape of the men.

THE WELCH MINING Co.

Mr. E. W. Harris, of St. Louis, has the management of two mines of the above company located at Birkner—the Victor and Excelsior. The former has been idle for some time, and will only be reopened upon a revival of trade. There were about 20 miners employed at the Excelsior at the time of my visit. There was no current of air at the time, but a new air course was being pushed forward with a view to securing a shorter and better passage. Mr. Harris also contemplated introducing 4 of the Yock mining machines. He makes the statement that he can produce coal cheaper by hand-labor, but owing to the nature of the coal, the machine mining turns it out in better shape for the market. It is the custom with miners to blast it "off the solid" without undermining, which breaks it up too much. He has already had two machines in his place and states that the cost of operating the compressor is greater than the usual estimates.

KNECHT & SON.

This is a St. Louis firm operating a mine at Birkner, with five Harrison machines, when working up to their capacity. With four machines they employ a force of 38 men as follows: Four machine men at \$2.80 per day, 4 shovelers at \$1.75, 6 blasters at \$2.25, and 24 loaders at \$1.75. The day's work is measured by the number of boxes or pit cars filled, which at this place must be 24, containing an average of 20 bushels each. The average daily product is 266 tons. The mine is in good condition, and connection is made with mine adjoining to furnish facilities for escape. The air is distributed in two splits, with a total volume of 3,412 cubic feet.

This firm is distinguished as the only one in the district which offered any discourtesy to the inspector, and that emanated from their office in St. Louis, not from the gentlemen at the mines.

Harry Lester, Superintendent.

THE DUTCH HOLLOW MINE.

This and the Birkner Coal Co's. mine are owned and worked by coal miners for their own benefit. They are both single-entry mines, like most of the mines about here. The Dutch Hollow Mine gives employment to 24 miners, and is connected underground with the Knecht shaft. Their air ways are large enough, but the volume of air was deficient.

The Birkner shaft is connected underground with the Pollock mine adjoining. There are about 15 miners at work, and the amount of air in circulation measures twice as much as that in the former place.

Edward Avery, President.

THE POLLOCK MINE.

This is another Birkner mine, employing about 10 miners, and connected with two adjoining mines underground. The works were closed at the time of the inspector's visit, and had been for several days.

MILLSTADT COAL CO., AND OTHERS,

At Millstadt, on the Cairo and St. Louis Narrow Gauge Railroad, there are several mines, that of the above company and of the Millstadt Union Co. being entirely new. The shafts of both have just been completed and the engines and machinery are being put in position preparatory to hoisting.

In addition to the foregoing, there are four small mines operated, for local sales of coal, by John Behomann, John Crossman, Furham & Co., and the High Prairie Coal Co. These employ from 3 to 8 miners each for a part of the year only. At the two latter places the men were ordered out of their rooms until proper air courses were established, and steps were taken to secure second places of egress.

S. A. WISENBORN, HARMONY.

This station is on the Illinois and St. Louis Railroad, and the mine is a single-entry mine, employing about 50 men inside.

There was found an abundance of air, divided into three splits, and kept in circulation by furnace. I am not advised as to what they have done in regard to escapement shaft.

Samuel Daniels, Pit-boss.

ROSE HILL MINING Co.

This mine, on the line of the same railroad, was in good condition, giving work to 15 miners. Ventilation was ample. They have promised to erect fan, and enlarge air shaft for an escape-ment. This is also a company of miners, who have bought the coal and leased the plant of Hazzard & Emory.

James Day, Pit-boss.

JOHN KLOESS' NEW MINE.

This is a new mine, opened with single entries, and the rooms are turned off each side of main entries, making it very difficult, owing to numerous doors, to convey air properly to the working faces. A fan has been put up, and at my visit 50 men were at work underground.

Besides doing a fair shipping business, this mine is favorably located for team trade, of which they have considerable.

THE NORTHWESTERN COAL Co., BELLEVILLE.

This company has a single-entry mine, working 15 miners, and is connected below with the Green Mound mine, adjoining, the shaft of one being the downcast, and that of the other the upcast. The company is, however, sinking another shaft, with a view to abandoning this.

Joseph Schront, President.

THE GREEN MOUND COAL Co.

This mine adjoins the foregoing, and has the same system of ventilation. The company is composed of miners and Belleville merchants. These two, and five other pits in the same vicinity, were flooded by Richland creek in November last. The territory embraced in this disaster was about two miles in length by a half mile in width, and the mines filled were those of John Taylor, Henry Taylor, James Beattie, John Kloess and John Maul,—the latter, however, had been previously abandoned, and the pit-cars and iron taken out.

This damage to mining property was the consequence of carelessly mining under the possible bed of the creek, with very insufficient strata intervening between the coal and the surface.

WILLIAM RUBBLE & Co.

This firm is working an old mine, without any special system, but solely with the aim of securing whatever coal there may be, whether pillars or otherwise. They employ about 10 miners, and have plenty of air in circulation, owing to the fact that their shaft is the downcast for a current which ventilates two other adjoining mines belonging to the same estate.

THE HUMBOLT MINE.

This place has been operated by three different parties since I first knew it, and as the escapement shaft requires overhauling, there may be other changes still in the nominal ownership. There are usually about 10 or 15 men at work in the place, and for these there was 3,740 cubic feet of air.

There are several small places for mining coal for local trade, in this vicinity, the names of proprietors being James Charlton, Lawrence Faberer, Gellwicks & Richards, and Jacob Brosius, the latter of whom is required to sink an escapement shaft before resuming work for the winter.

SUMMIT COAL MINE.

This is an old mine, on the "Cairo Short Line," which has been worked since 1865, and employs at present about 20 men. There is a large area worked out, but the estate consists of 225 acres, much of which has not yet been touched. They have sunk a new shaft lately, to a lower seam, which is thought to be No. 4, the upper one being recognized as No. 5. This new seam is said to be of good quality, 2½ feet in thickness, and it is proposed to open it with the long-wall workings.

GARTSIDE MINE No. 2.

This mine has been closed ever since I came into the field, owing to the depression in the coal business. It is in good condition, and work will be resumed as soon as circumstances justify it.

GARTSIDE MINE No. 3.

This is a single-entry mine, worked by machines. There are 5 machines employed, requiring a force of 5 operators, 5 shovelers, 30 blasters and loaders, and 19 laborers, underground. Amount of air, July 23d, 3,423 cubic feet per minute. This place is worked in connection with the Branch mine adjoining.

THE SKELLETT MINE.

This place is operated conjointly with Schureman's mine, adjoining,—that is, a single compressor is used for the machines in both mines, as in the case of the Gartside and Branch mines. There are 8 Harrison machines in operation, employing in all about 100 men. For these the volume of air in circulation was 10,800 cubic feet per minute.

William Skellett, Superintendent.

THE POYNTON MINE.

This property embraces about 92 acres of land, 80 acres of which are worked out. A company of miners have a lease of the property, and are taking out the remaining mineral. There are about 10 men at work at it, all shareholders, and for these there is 1,200 feet of air in motion. Ladders are placed in the air-shaft, for purposes of escape.

John Polk, Superintendent.

HAZZARD & EMORY'S MINE.

This is an old mine, which has been very poorly managed, the works being very irregular and wanting in system, which renders it very difficult to conduct the air properly to the working places.

There are about 50 men employed, the total amount of air being only 2,310 cubic feet.

Charles Emory, Superintendent.

ENTERPRISE COAL MINING CO.

This is another company of miners who have leased an old mine of Hazzard & Emory, in which they are doing a small business, working old pillars and remnant coal.

THE BRANDENBERGER MINE.

This mine employs a force of about 50 men, and is ventilated by a furnace which gave a current of 3,080 cubic feet, but has since been greatly improved.

Mr. Brandenberger was one of the first operators to put scales on the dump for weighing coal in compliance with the law. The arrangement with the miners was that he should pay a quarter of a cent less per bushel for unscreened coal weighed at the top, or a quarter of a cent more for coal as weighed after screening on the track scale. This agreement was subsequently adopted at the mines in that neighborhood.

REEBS' MINE.

This was a small place, employing about 10 men, the coal being raised by horse-power. The owner was fined for violation of the mining laws, and the place has since been closed.

THE MAIN GUY MINE.

This mine is operated by Mr. John Maule. It has no shipping facilities, but its product is delivered direct to the adjoining nail mill of Messrs Waugh & Co., the surplus being sold to teams. About 25 men are employed, for whom there is a current of 12,342 cubic feet of air maintained. It is doubtful if this property will fulfill the expectations of its owners, owing to the difficulty of holding the roof, and the probable limited amount of coal.

HEINRICH COAL CO.

About 40 persons are employed in this mine at Heinrichtown, and at first the current of air measured only 2,718 cubic feet. Since then a fan has been put in increasing the volume, and the escapement shaft has been made available by the construction of ladders. The company owns 100 acres of land, and on it houses for their workmen. To each family, grazing is furnished for one cow free of charge.

THE REICHART MINE, FREEBURG.

This property is worked under a lease by Charles Beiker & Co., who employ about ten miners, for whom a volume of 9,790 cubic feet of air is furnished by a furnace. In this case as in many others I have induced the operators to introduce a fan in place of furnace in order to enable them to place ladders in the air shaft and make it available for purposes of escape for the men in case of emergency.

FREEBURG COAL CO.

Fourteen miners and the necessary auxilliary force are employed in this mine, which is ventilated by furnace. The furnace in this case also is to be superseded by a fan and the air shaft utilized for escapement purposes.

THE RICHLAND MINE.

This is located at Wilderman Station, and is operated by the Dutch Hollow Co., which is a co-operative company of miners. There are 12 of them and they have 4 mining machines, two of Harrison's and two of Yock's patent. Only one of them was being used at the time of my inspection. There was plenty of air, but they have determined to substitute fan for furnace.

BRANDENBERGER'S MINE.

This is also at Wilderman Station. On my first visit they were using two machines of Mr. Brandenberger's invention; subsequently I found them both discarded. They were very heavy and were designed to be worked with steam. About 30 men are usually at work underground, and the amount of air was increased, after my first visit, from 3,150 to 5,404 cubic feet by cleaning up and shortening the air ways. At this place the furnace is on the surface. There is also an escapement shaft in good condition, equipped with ladders and substantial landings at the head of each.

DEUZENBURGH'S MINE.

Hanke, Miller & Co. operate these works, employing about 35 people inside. They have chutes for coaling locomotives, which trade is shared with them by the White Oaks Co. The main entries are single, and the cross entries double. They ventilate with a furnace which is large and well built. The air shaft is partitioned off and furnished with ladders for the use of the men.

William Miller, Superintendent.

THE MARISSA COAL CO.

This is a double-entry mine, in which 30 men find employment. The furnace at this place was stopped, and an escapement shaft begun.

THE WHITE OAKS MINE.

Messrs. Tijou, Donk & Co. operate two double-entry mines at this place, both in excellent condition. The furnace here was superseded by a fan, increasing the volume of air from 6,890 to 11,760 cubic feet per minute.

JOSEPH KRAUS & BRO., BELLEVILLE.

This mine has a slope opening, the coal being hauled out with mules, though it is contemplated to introduce an engine for that purpose. Fifteen miners are employed, and the workings are ventilated by use of pump with upright boiler. The air shaft is being fitted up for an escape shaft.

CONCORDIA MINING Co.

This a new enterprise the shaft having just been completed. Sixteen miners were at work driving entries, the coal being dumped on railway cars. The proprietors promised to sink escapement shaft, and make the outfit all the law requires.

PERRY COUNTY.

THE PARADISE MINES, HALLIDAY BROS., ST. JOHNS.

This is the most extensive single opening in this district. It is a slope with brick archway 820 feet length, the incline being 1 in 20. The hauling cable is now one mile in length. The depth of the coal as surveyed by Mr. Bulmer, the underground manager, with a view to sinking shaft, is 420 feet below the surface. These are double-entry workings, but the nature of the underlying clay renders it necessary to leave very heavy pillars. They nevertheless save 80 per cent. of the coal, which is a large percentage under the circumstances. Ventilation is secured by a large furnace well attended night and day. The overcasts are arched with brick. The air is, we taken care of, carried well up to the faces, and measured in the return air way 15,891 feet. At the time of my first inspection there were 150 miners, 8 boys, 35 laborers and 35 mules and drivers, at work in the mine. The coal is taken from the mouth of the slope by the company's locomotive which hauls the pit cars about a mile and a half west to St. Johns, where there are extensive salt works. The product of 5 wells is here evaporated producing 270 barrels of salt daily. The slack screened from the coal at the mines is taken up, washed and manufactured into coke.

M. C. Wright, Superintendent, J. Bulmer, Underground Manager.

THE ENTERPRISE COAL AND COKE Co.

The mines of this company are situated about a mile south of DuQuoin, and are the southernmost mines in Perry county, and are connected by switch with the Illinois Central railroad. The works are laid out on the double-entry system, and ventilated by the largest furnace in the district, its dimensions being 85x6 feet, and

he height $6\frac{1}{2}$ feet in front and $7\frac{1}{2}$ feet at the back. I found 15,180 cubic feet of air in the passages on my first visit, which was materially increased on my next. This mine is in excellent condition, and was employing 70 men and 8 mules underground.

J. Cunliff, Sup't; Matt. Davidson, Underground Manager.

THE STAR COAL MINING Co.

This company is located on the Illinois Central Railroad, and, like the other mines in this county, is operated and worked systematically on the double-entry principle. The company owns or leases 160 acres of land, one-half of which is worked out. The remainder will be abandoned next summer owing to a bad roof inside and a bad market outside. They are taking pillars at present.

Henry Horn, Sup't; Mr. Jeremiah, Underground Manager.

THE PERRY COUNTY COAL Co.

This company has just completed a new shaft, and an escape-ment shaft bricked from top to bottom. They have their machinery in operation and are driving entries at the bottom. Mr. Goddard, Sup't, kindly furnishes the following memoranda of strata encountered in sinking shaft:

	Ft.	In.
Soil, sub-soil and clay	14	..
Boulders and limestone	5	6
Clayey shale	9	..
Coal .....	..	4
Fire clay	5	..
Hard gray limestone	5	6
Soapstone	7	..
Coarse gray limestone	7	..
Blue limestone	6	..
Black shaly slate	4	..
Dark sandstone rock	3	..
Coal .....	.5	1
Total depth.....	71	10

THE SUN COAL AND COKE Co. No. 2.

This mine is located still further north than the foregoing, and the depth of the coal is 80 feet.

This is a double-entry mine, ventilated with furnace, which supplies 5,700 feet of air to about 70 men and four mules. The company will abandon this mine in July next, upon the expiration of their lease, and open up their new mine in the same vicinity, known as No. 3. This mine, however, may still be operated by other parties. It is a dry mine, and in good condition.

SUN COAL AND COKE Co. No. 3.

This mine has recently been opened, and the company is fitting it up in good shape, preparatory to handling a large amount of coal, and putting it on the market in good condition. It is a double-entry mine, laid out in good form, and will be in excellent working order when they are ready to abandon their present works.

James Buchanan, Sup't.

DUQUOIN COAL MINING Co.

This company has abandoned their mine due east of town, owing to a bad roof and the fact that they have to haul their shipping coal a mile to the track. They have mining property, however, on the Cairo Short Line, with good shipping facilities, which they will doubtless develop.

FRIZZELL COAL Co., DUQUOIN.

This is a small mine about a mile from the Illinois Central track at DuQuoin, and all coal which is shipped has to be hauled that distance. The mine is in fair condition, and ventilated by furnace. An escapement shaft has been sunk and ladders are being placed in it. About 10 men are employed in the mine. The company is desirous of complying with all the requirements of the law.

George Spencer, Sup't.

THE MOON MINES, DUQUOIN.

This is a small mine, operated only in winter, badly ventilated with an open fire on the floor of the mine. The air and escape shaft need reconstructing, which the Superintendent, J. B. Maclin, has promised to do before he starts up for the winter.

Several small mines, either idle or abandoned, were visited in this vicinity, among them that of Richard Baillie, George Winn, the Gallum mine, and the Lake mine, which will undergo some necessary improvements in case business is resumed.

D. C. BARBOUR & SON, TAMAROA.

The mine of this firm was found in bad condition at my first visit, but subsequently several desired changes were made; among them was the erection of a 7-foot fan, the covering of buildings with fire-proof materials, and the making of an underground connection with an adjacent mine for escapement. They are also putting in 7 iron in the place of wooden track, and are making good their promise to put the place in standard condition.

D. C. Barbour, Sup't.

THE COX MINE, TAMAROA.

This mine is operated by Mr. P. White, and is adjoining the foregoing, with which an underground connection is being made. Like that, it was found in bad condition, but a fan will be put in and other improvements made. This place is very much in need of a competent underground manager. One of the miners was detailed to accompany the inspector, as the only person on the place who was familiar with the workings. A good pit-boss, well paid, will always save money and save coal for the mine owner.

JOHN H. SCHULTZE'S MINE.

This place is near Pinckneyville, and is run in winter in connection with a saw-mill, the engine of which hoists the coal. The proprietor owns only 11 acres about the mill, and though complaining of the expense of it, has sunk an escapement shaft.

MULENE & MILLER, PINCKNEYVILLE.

This firm has recently opened a new mine in a 6½-foot seam of coal, and will drive an entry at once to an old well and enlarge it for an escapement shaft.

THE BEAUCOUP MINE.

Donk Bros. own 200 acres of land here and were permitted to drive some experimental entries, with a view to testing the value of the seam, and if advisable, sinking a new shaft. The place was ultimately abandoned.

JACKSON COUNTY.

THE CARBON HILL MINE.

This mine is about two miles southeast of Carbondale, and is operated by Samuel T. Brush. The shaft has been abandoned, and a drift opened into the same seam. The mine has been worked all summer, with an increasing business and good prospects. Mr. Aitkinson, Superintendent, has made a successful opening of the drift, and will utilize the abandoned shaft for an escapement.

THE ST. LOUIS ORE AND STEEL CO.

The property of this company was placed in the hands of a receiver on the 24th of July. No. 3 shaft, which gave employment to about 50 miners, but was wholly deficient in proper ventilation, was fortunately closed. The No. 7 tunnel, employing about 150 miners, also had the air courses badly caved in and choked up. When operations are resumed many improvements will be necessary, which Mr. Simpson, the present Superintendent, proposes to make. The coke ovens belonging to this company, and connected with these mines, are also suspended until the beginning of the year.

GARTSIDE COAL Co.'s MINE.

This mine is situated on the Cairo and St. Louis Narrow Gauge Railroad, the office of the company being in St. Louis. It is a double-entry mine, employing 100 men inside, and is ventilated with steam, the volume of air in circulation being 7,518 cubic feet. The company has enlarged and retimbered with heavy timber one of their hoisting shafts, so as to enable them to raise one-ton cars. It is now ready for extensive operations.

Mr. Daniels, Superintendent.

THE CARBONDALE COAL AND COKE Co.**Harrison Shaft.**

This is a double-entry mine, in good condition, employing 117 men and boys and 8 mules underground. It is ventilated by water-fall in the escapement shaft, and steam in the hoisting shaft, which is the up-cast. The air in the passages measured 10,706 cubic feet. This place is distinguished for the harmony existing between the company and the men. This is owing largely, in the first place, to an annual adjustment of prices. The company weighs and pays the miner for all the coal in his car, upon the stipulated scale, and then screens and assorts it to suit the market. The management also provides for a board of arbitration or adjustment, composed of five miners, two designated by the company, two by the miners, and the fifth chosen by them. The duties of this board consist of the investigation of all complaints or misunderstandings which may arise as to prices for work, or grievances of any nature. They also inspect and adjust the scales, and otherwise administer upon affairs affecting the interests of miners or proprietors. Only in case of disagreement among the members of the board are difficulties of any kind referred to the General Manager, who visits the mine and hears the case within ten days after notice from the committee. This plan has been in successful operation for six years, to the mutual advantage of both parties, and has secured most amicable relations between them. Mention of this matter is made here in the hope that the experiment may be tried elsewhere.

A. C. Bryden, General Manager, St. Louis.

THE BIG MUDDY COAL Co., MURPHYSBORO.

This company's shaft is located at De Soto, on the Illinois Central Railroad. It is a single-entry mine employing 20 men underground. The proprietors do not secure as much trade as they ought with the quality of coal they have, and the facilities for getting it out, and the mine is consequently not run steady.

WASHINGTON COUNTY.

DUBOIS COAL Co.'s MINE.

This is a single-entry mine affording employment to about 50 men in all. There was found 6,987 cubic feet of air in circulation, but a large portion of it was lost before reaching the working faces. The ladders in the escapement shaft were burned out in July, but have since been replaced. The erection of a fan was contemplated, and recommended by me, but the present pit-boss determined upon a furnace, though in my opinion it involves more expense and does not secure as good results.

G. W. Brown, President.

NASHVILLE COAL Co.

Hartman & Yock.

This mine is employing about 40 men and had a volume of air measuring 8,370 cubic feet per minute, divided into two splits, affording good ventilation. Mr. Hartman acted promptly on all suggestions of the inspector,—promised to get a fan, and the contract for escapement shaft was let, the work to be finished in August.

William Anderson, Pit-boss.

MARION COUNTY.

CENTRALIA MINING AND MANUFACTURING Co.

This company's mine is a well-planned, well equipped and extensive colliery, with double entries, and operated for a large business. There are about 100 men employed, and there was over 15,000 cubic feet of air in circulation. For this a fan is in use, but a larger one will replace it upon the completion of a new shaft now in process of construction. There is a pair of powerful direct-acting engines, of the Litchfield manufacture, for hoisting purposes, and a smaller one for operating a revolving screen and elevating the slack. Everything is done in a thorough and substantial manner.

John Forsythe, Superintendent.

SANDOVAL COAL AND MINING Co.

This is another important mine of the double-entry class, employing about 75 men. The workings are systematically laid out, and arrangements are being perfected to split the air current, thus largely increasing the efficiency. Owing to litigation, involving the title to the company's land, there has been some delay in sinking an escapement, but that is now under way. A large body of water bearing sand has, however, been encountered, which is causing delay and unusual expense. The plan of the work contemplates a first-class escapement shaft when completed.

J. S. Middleton, Superintendent.

CLINTON COUNTY.

THE TRENTON MINE.

This mine is located on the Ohio and Mississippi Railroad track at Trenton, Joseph Hanke, proprietor. It is a double-entry mine in five feet of coal. An old hoisting shaft is used for escapement, where an engine is placed to run pumps, and hoist men if necessary. This mine makes a great deal of water, requiring the constant use of two large Cameron pumps. Ventilation is secured by steam jet from pump, but only 6,720 feet was found for about 100 men and 10 mules. Mr. Hanke, however, is about to erect a fan to obtain a better volume. He is at present engaged in putting in track scales, extra pumps and steam jets, iron track, and in retimbering the entries, with a view to bringing the place in all respects up to the legal standard.

BREESE MINING Co.

This company is composed of the merchants and miners at Breese, and they have a shaft 400 feet deep to a seam eight feet in thickness. Coal was reached in 1382, and opened on the double-entry system. The entries are 12 feet in width, giving abundant area for a good volume of air. Circulation is obtained by use of an upcast tower about 25 feet in height, the difference in temperature alone producing a current of 7,273 cubic feet per minute, which illustrates the advantage of roomy well kept air ways. Owing however, to the fluctuations in temperature, a fan has been erected to secure a uniform current. An escapement shaft will be sunk at once.

CARLYLE.

The shaft which has been in progress at this point for a number of years is at present abandoned, though the people do not despair of eventually reaching a paying seam of coal.

• SALINE COUNTY.

ILLINOIS IRON AND COAL Co., HARRISBURG.

Eighty men and four mules were found at work at this place, with only 2,500 cubic feet of air in circulation, which is hardly more than that required for the animals alone. The air courses were circuitous and badly obstructed, while comparatively little work might effect material improvement. This was undertaken at once, and a new shaft begun for an upcast, so as to air the mine in two divisions.

Wm. Harpool, Sup't.

NEWCASTLE MINE.

This is a new mine, operated by horse-power, employing 10 men, and with escapement shaft just completed.

Mason Alson, Proprietor.

CLIFTON MINE, HARRISBURG.

This is a slope opening, the coal being hauled out by mules. It is a double-entry mine, well planned and operated, and in the best condition of any mine in the county. The working force consists of about 65 men, and the air is carried well up to the working places.

Roberts & Howells, proprietors.

LEDFORD MINE.

This is also a slope, the coal being hauled about 200 yards to the tippie on railroad track. In the main entries there was 12,000 cubic feet of air, but before the men were reached this was reduced to a minimum.

Fifty men and 4 mules were at work underground, the men receiving at their places only 4,340 feet of air. A change made in underground managers will, it is expected, secure much needed reform in the condition of this mine.

C. O. Godfrey, proprietor.

DAVENPORT MINE, HARRISBURG.

This mine has been recently opened, and had as yet no side-track for shipping purposes, but was doing some local trade. The place will be opened up on the double-entry system, as soon as rail connections are made, and an escapement shaft will be sunk. The coal is 5 feet thick and 28 feet below the surface; 20 of which is soil and clay, 6, limestone, and 2 slate.

GALLATIN COUNTY.

EQUALITY COAL AND COKE CO., CASSELLS & TEMPLE.

This company has both a drift and a shaft, and employed about 30 men in each at the time of my visit. The drift, however, is about to be abandoned as worked out, while the shaft is new, with double-entry workings. The coal is faulty and dips away from the shaft. Entries are being driven to test the character and condition of the seam. Ventilation is secured with exhaust steam from the pumps, and the volume measured 3,520 cubic feet per minute.

This company formerly, and for many years, manufactured salt in the vicinity of the drift opening, and is now engaged in the manufacture of coke in a limited way. The coal is crushed, and carried by a perforated conical screen to the washer, where it passes from hopper to hopper and is thoroughly cleaned for the ovens. This careful preparation gives a good, clean strong coke. These ovens are narrow and high, about $2\frac{1}{2}$ feet wide and $4\frac{1}{2}$ feet high, and this shape leaves the coke in larger, or rather, longer pieces. This coke has a fine, close texture, but seemed rather lighter than that made in Jackson county, though a test would have to be made to decide that definitely.

WILLIAMSON COUNTY.

CARBONDALE COAL AND COKE CO., CARTERVILLE.

This company owns and operates an important mine at this place as well as the one in Jackson county already reported upon. The same policy is pursued at both places, and the same harmony prevails between the company and its employes. The miners here are a sober and intelligent class, many of them owning their homes, and some of them owning farms in the vicinity.

The coal in this mine is $9\frac{1}{2}$ feet thick, about two feet of which is left at the top to strengthen the roof, which in some places is nothing but clay. After the chambers are worked out this top coal is generally taken down. The slack is transported to Harrison, Jackson county, where the company's coke ovens are located, to be made into coke. The coke manufacture is located at that place on account of the abundance of water furnished by the Big Muddy river. The process here consists of crushing the coal, then hauling it with elevator to the washer, where the plungers keeping the coal in constant motion force it over the screens into cars which take it to the openings in the tops of the ovens. All the ovens are charged in the same manner, and their capacity is from four to seven tons, the time for coking being 24 hours or 72 hours, or even longer, as may be desired. The ovens are all charged for the same time however, and as soon as the time has expired, they are drawn, and re-charged at once, so as to maintain the uniformity of heat, which is essential to the making of good coke, for which purpose also, alternate ovens are drawn and charged. The washing and screening process removes all impurities which have a greater specific gravity than coal, and it is only those which have about the same which can find their way into the coke. Coals with slaty partings are not suitable for coking for this reason. Even when the slaty seams are hardly perceptible in the coal, they become very apparent in the coke. At Harrison there are three "nests" of 36 ovens each, or 108 in all, 40 of which have been in operation all summer. They are built back to back, and each oven is 16 feet long, 6 feet wide, and $3\frac{1}{2}$ feet to the top of the arch, inside measurement. The charge for seventy-two hour coke is five tons. The coke made by this company is said to be of excellent quality, competing in some instances successfully with the celebrated Connelsville coke.

Two neighboring mines are also operated by this company, in the vicinity of Carterville,—the Williamson County Mines, (known as the Laffin Slope,) and the Dodd Shaft. The former was the first opening of the company in this county. It is a single-entry mine, in the same seam, employing about 80 men, for whom there was found over 9,000 cubic feet of air in circulation.

The workings at the Dodd shaft are double-entry, and connected underground with the foregoing. At the time of visit, there were about 100 men at work, with 7,784 cubic feet of air in circulation.

In addition to the foregoing, there are two small places in the county, operated for the local trade,—one near Marion, worked by J. B. Williford, and one near Carterville, worked by J. A. Young.

A drift was opened in a two-foot seam of good quality, two miles west of Carterville, by George Wright, which subsequently was abandoned.

RANDOLPH COUNTY.

JONES & NESBIT, COULTERVILLE.

This shaft is 325 feet deep, and in November gave employment to 30 men and 3 mules. For these there was 3,600 cubic feet of air in circulation, in one current. Connection was made by driving a narrow entry, with their new shaft used as an escapement. I advised the enlargement of this, which was subsequently done. On the 6th of December an explosion of gas occurred, burning six men, for account of which see list of accidents. On the 8th of December there was 11,418 feet of air in motion, and no gas has been encountered since.

BARNARD COAL COMPANY, NEAR CHESTER.

This is a single-entry mine, the product of which is delivered in Chester for steamboat use. They employ 25 men, and the amount of air in the passages was 2,300 feet. Furnace has since been repaired, and the air shaft has been made available for escapement.

WILLIAM GALBY, PERCY.

Coal was opened at this place in July, and as yet but little mining has been done. It is a single-entry mine, and the coal is hoisted by horse-power. An escapement shaft will be sunk at once.

RANDOLPH COAL MINING COMPANY, PERCY.

This is a new company, who have just opened up the coal. It is 44 feet deep—21 feet of soil and clay, 17 feet of lime rock, 1 foot of shale, and 5 feet of coal. It is designed to open double entries, and hoist with gin.

R. H. ROSEBOROUGH, SPARTA.

About 25 men were found employed at this mine, with sufficient ventilation. Work has been suspended since, but an engine has been substituted for horse-power at the hoisting shaft, and preparations made for resuming on a larger scale.

D. B. BOYD, SPARTA.

This is a double-entry mine, employing about 25 men in the shipping and local trade. There was found 7,000 feet of air, carried well up to the faces. Escapement shaft was put in repair, brake put upon the hoisting gin, track scales put in, and a disposition manifested to comply with all legal requirements. This is about the best managed mine in the county, and is in charge of Mr. Davidson, a competent and intelligent pit-boss.

THE EDEN MINE, SPARTA.

This is a small single-entry mine, employing few men, and devoted to the local trade. It was doing a fair business, but was not in good condition. There was no escapement shaft, the traveling ways were narrow, and a hemp rope was used for hoisting, with horse-power, in a shaft 150 feet deep. Unless radical changes are made in this and other similar places in the vicinity, the inspector will have no alternative but to close them up.

There are several small "country banks" in this vicinity, worked, more or less irregularly, by farmers or others, for neighborhood supply, not deserving mention as mines, which are nevertheless recorded as contributing to the coal product of the county.

CASUALTIES IN THE FIFTH DISTRICT.

FATAL ACCIDENTS.

No. 1. Frank Cook, driver at the mine of the Frizzell Coal Co., aged 18, was killed by being caught with the cage. The company settled with his mother, who is a widow.

No. 2. Thomas Sowman was killed October 17, at Tunnel No. 7 of the St. Louis Ore and Steel Company, by the fall of coal. He had been left in his room to finish loading some coal by the other men working in the vicinity, and by the man who worked in the room with him. Subsequently the driver returned for the coal, saw no light in the room and went away, supposing Mr. Sowman had also gone. As he was missed, however, at supper, search was made for him, when he was found in his room with his head crushed under a mass of coal which had fallen upon him. He left a widow and three children.

No. 3. Alex. Temple was killed November 30, at Roseborough's shaft, on the Cairo and St. Louis Railroad, by a fall of coal. He was 18 years old, and was working alone in a room adjoining that of his brother-in-law. The latter on going in to look after him found him crushed beneath the coal and dead.

No. 4. Fritz Heisler, widower, aged 63, was also killed by falling coal in his room at Knaus & Brother's mine, December 11. He was loading his box and standing under the coal which was cut on one side. It gave way without warning and killed him instantly. This practice of working under coal which is partly detached is a custom more or less prevalent in this district, and miners are disposed to resent any suggestion as to the danger of it.

No. 5. Edward Suddoth was also killed by the falling of coal at the Trenton mine, on the 1st of March.

No. 6. Thomas Hudson was killed at Tunnel No. 7, St. Louis Ore and Steel Company, by a fall of the top coal. He had fired a shot just before dinner, and immediately afterwards went in to the face and sat down in front of the coal, when it fell upon him. He died from his injuries before he could be removed from the mine. He left a widow and four children.

No. 7. Paul Superabe, aged 40, unmarried, was undermining a standing shot, working alone because he was not considered a good

workman. There was a slip running through the coal and roof, and when he had cut under to the slip, the coal and rock came down, crushing him so that he died before he could be carried home.

No. 8. Adam Kunkle was killed at Conrad Reinicke's Shaft No. 1, May 17. He was engaged the day before to shovel away from a machine. While so occupied, some loose coal from the face fell on him in such a manner as to inflict fatal injuries.

NON-FATAL ACCIDENTS.

No. 1.—June 6, 1884, at Centralia mines. Joseph Taylor fired a shot which knocked out the props; while resetting them a quantity of slate fell, breaking his leg.

No. 2.—September 7, 1883, at White Oak mine. John Huilson had his head bruised by falling slate.

No. 3.—July 12, 1883. Fred. Desbergh, while setting props, had both legs broken by falling slate, at Marrissa Coal Co.'s mine.

No. 4.—November 15, 1883. While Martin Samllam was making a cartridge, it bursted. In catching the powder in his hat, it ignited from a spark from his lamp, exploding a keg of powder near by, burning him severely.

No. 5.—At Bruce mine. Frank Senter, while filling his car, had his arm broken by falling coal.

No. 6.—Henry Dyer was burned by powder, at Bruce mine, while drilling out a hole that had missed fire the evening before. He was idle four weeks from its effects.

No. 7.—March 1, 1884. Henry Vogel was seriously hurt by falling coal, at Joseph Hanke's mine, Trenton, and was unable to work for two months.

No. 8.—December 4, 1883. J. Williams (a colored miner), at St. John's mine, had his leg broken by falling coal, while filling his car.

No. 9.—December 10, 1883, at St. John slope. Henry Baird, while unloading a car, had his leg broken by falling slate.

No. 10.—November 15, 1883. Randolph Bishop had one leg broken and the other dislocated at hip, by falling slate, while loading a car with slack, at Sun coal and coke mine.

No. 11.—May 5, 1883. Francis Doyle, at St. John slope, was drawing pillars and shoveling coal from under top coal and slate, to take down coal and set timbers to the slate, when it came down, bruising him severely on his hips and head, knocking out eight teeth.

No. 12.—T. Howells, at DuQuoin Coal Mining Company's mine, was hurt in the groin, by rope slipping off the drum, while he was at work on top of the cage putting in guide.

No. 13.—May 31, 1884. John Gamble had his collar bone broken. While bringing out a trip of full cars at Schureman mine, a wheel was broken on the car he was riding, throwing him against the rib.

No. 14.—June 24, 1884. Nicholas Gardner and Mathias Issler. were severely hurt at Schureman mine by falling roof. While running a machine, Gardner's left arm was badly cut, and Issler had his leg broken.

No. 15.—October 24, 1883. John Kingham, employed as shoveler for machine at William Skellet's mine, had his leg broken, by a collision of pit cars on one of which he was riding.

No. 16.—January 12, 1884. At Skellet mine, John Kummick was seriously injured, by slate falling on him, while loading a car with coal. His ribs were crushed into the lungs. The doctors say he cannot live.

No. 17.—September 29, 1883. James Smith was badly bruised on head and shoulders by falling slate, while working with a machine at Skellet mine.

No. 18.—December 6, 1883. At Coulterville mines, by an explosion of gas, six men were seriously burned. James W. Sively had his clothes entirely burned off. John Malarn about his face and back. James Frior, face, neck and right hand. Frank Horn, face, back and arms. W. S. Reid, face and hands, John Orr, face, neck, arms and back.

No. 19.—March 11, 1884. Richard Beaty, driver at tunnel No. 7, was caught between the cars and bruised; he was idle one week.

No. 20.—March 20, 1884. At St. Louis Ore and Steel Co. mine, Forest Minnewell, while driving, was hurt by falling timber, knocked out by car jumping the track.

No. 21.—Watt. Bickton had his head cut and back hurt, by coal from a blast fired before he had time to get away.

No. 22.—November 14, 1883. Morgan Davis, was severely bruised at Providence Coal Co. mine, by the fall of coal he was undermining.

No. 23.—October 2, 1883. At A. Brandenberger & Co.'s mine, George Platt, had his arm broken by not going far enough away while firing a blast.

No. 24.—June 20, 1884. Frank Kamer had his back injured at John Kloes mine, by falling slate which he had tried to take down a short time before.

No. 25.—October 20, 1883. Anthony Faber was severly burned by the explosion of about two-thirds of a keg of powder, at Gilliwick and Richards mine.

No. 26.—May 17, 1884. At Hazard and Emory's mine, Charles Emory, Supt. In repairing escapement shaft, timber fell, striking him on the head; he was idle one week.

No. 27.—April 20, 1884. John Gardiner had his left leg broken by the bucket becoming detached and falling back on him, in a shaft which was being sunk by Pittsburgh Mining Co. at Belleville.

No. 28.—September 10, 1883. At Victor mine, Joseph Worms was hurt on his back by coal from a blast he had fired, and went back to examine.

No. 29. November 23, 1883. William Lewellin received a severe injury, at Victor mine, by coal from a blast striking him on his head.

No. 30.—April 10, 1884. While Joseph Worms was taking down top coal at Victor mine, slate fell on him bruising his back.

No. 31.—September 14, 1883. Henry Lenz was hurt by cage coming down on him, while passing through the bottom of shaft at C. Reinicke's mine.

No. 32.—September 12, 1883. At C. Reinicke's mine No. 1, Bennet Kehner was hurt while loading a car.

No. 33.—October 11, 1883. Charles Reibling was severely hurt on his left side and leg, by loose coal falling on him, while shoveling for a machine, at C. Reinicke's mine.

No. 34.—March 14, 1884. At C. Reinicke mine, Victor Schendlin received a bruise on his back and arm by falling slate, while filling box of water.

No. 35.—January 14, 1884. Henry Markstorm was burned on his face, arms and breast, by igniting powder in a hole that had become clogged in charging, and which he was trying to force back. Idle two months.

No. 36.—May 17, 1884. While Adam Kunkle was shoveling for a machine at C. Reinicke's mine, about four or five bushels of coal fell on him, injuring him internally.

No. 37.—March 28, 1884. James Conroy was severely burned on his face, breast and arms, by the explosion of powder in a standing shot which he was drilling out at J. Taylor's mine, the blast of coal tearing the flesh from his right arm.

No. 38.—June 7, 1884. Joseph Bodaker was bruised on his side and abdomen by falling of roof between the props, at J. Taylor's shaft.

ST. CLAIR COUNTY—1884.

Name of firm, company or individual oper- ating mine.	Town or post- office nearest the mine.	Capital em- ployed.	CHARACTER OF PLANT.							EMPLOYEES.					PRODUCT.			
			Drift, slope or shaft.....	Steam, horse or hand- power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam...	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, fur- nace or otherwise?	Number of miners employ'd	No. of other employes, in and about the mine	No. of days worked during the year.....	No. of kegs of powder used during the year	No. men killed during year	No. of men injured (so as to lose time).	Price per ton paid for mining.	Average value of coal per ton at the mine.....
									Winter.....	Summer.....								
Dutch Hollow Coal Co., Emmit Mine.	Belleville.....	\$5,500	Shaft.	Steam.	130	6	6	P. R.	2	Fur..	12	12	200	130	..	..	\$0 62½	11,133 \$0 75
Dutch Hollow Coal Co., Birkner	"	6,500	"	"	135	6	6	"	2	"	12	12	230	140	..	..	62½	12,000 75
*Dutch Hollow Coal Co., Richland	"	15,000	"	"	100	9	6	"	2	Fan..	d 14	d 14	250	200	..	..	.....	19,584 75
Dutch Hollow Coal Co., Dutch Hollow	"	5,000	"	"	125	7	6	"	2	Fur.	30	30	240	420	..	..	62½	30,266 75
Henrich Coal Co., Joseph Morris, Nichol- son	Henrichtown.	10,000	"	"	100	6½	6	"	2	Fan..	45	60	308	220	..	..	62½	38,079 1 50
Summit Mining Co., No. 7 H. Pieper.	Lebanon	8,000	"	"	185	5¼	6	"	2	Fur..	15	25	220	250	..	..	62½	17,500 87½
Becker & Mack H. J. Henicke & Miller..	Belleville.....	25,000	"	"	90	6	6	"	2	"	20	25	200	115½	..	..	50	14,347 65
George Reuther, Irish Pond.	Freeburgh	7,000	"	"	160	7½	6	"	2	"	10	15	200	200	..	..	52½	6,000 65
Wm. Rubble	Lenzeburgh..	6,000	"	"	60	6½	6	"	2	"	20	30	313	600	..	..	50	36,000 80
Henr. Mine, St. Clair Co-op. M. & Sup. Co., Joseph Taylor, Alma..	Belleville.....	500	"	Horse.	90	6	6	"	1	.....	4	8	300	70	..	..	50	2,500 1 25
St. L. & High Prairie C. and Mining Co., St. Libory Coal & M. Co., Feuerhahn & Muckopf..	Belleville.....	2,500	"	Steam.	90	6	6	"	2	Fur.	8	10	280	120	..	..	57½	7,200
Concorvia Mining Co., York Iron	"	5,000	"	"	135	6	6	"	1	"	8	13	90	..	..	..	56½	3,020 65
Gustave Weinberger....	Ridge Prairie	5,000	"	"	200	7½	6	"	2	"	30	40	200	200	..	2	62½	20,000 75
	Millstadt	500	"	Horse.	40	5½	5-6	"	1	.....	8	..	91	..	..	..	70	1,220 1 05
	St. Libory	300	"	"	183	6	6	"	1	.....	2	3	200	..	..	..	62½	800 1 25
	Millstadt	300	"	"	48	6	5-6	"	1	.....	6	8	250	..	..	..	75	3,950 1 25
	Belleville.....	5,000	"	Steam.	60	6	6	"	1	.....	..	11	250	..	..	..	62½	5,000
	Lebanon.....	12,000	"	"	160	6	6	"	2	Fur.	d 36	d 36	250	250	..	2	..	48,000 75
		6,000	"	"	160	5½	6	"	1	P. R.	14	14	217	432	..	..	..	11,000 75

St. Clair County—Continued.

Name of firm, company or individual oper- ating mine.	Town or post- office nearest the mine.	Capital em- ployed.	CHARACTER OF PLANT.				EMPLOYES.						PRODUCT.							
			Drift, slope or shaft.....	Steam, horse or hand- power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam.....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, fur- nace or otherwise?.....	Number of miners employ'd	Winter.....	Summer.....	No. of men injured (so as to lose time).....	No. men killed during year.	No. of kegs of powder used during the year.....	No. of days worked during the year.....	No. of other employes, in and about mine.....	No. of tons of coal pro- duced (including nut coal).	Average value of coal per ton at the mine.....
Union Mining Co.....	W. Belleville.	\$13,000	Shaft.	Steam.	101	4½	6	P-R	2	Fur.	10	10	\$0 37½	..	40	140	2	2	3,360	\$0 62½
Renchler Mining Co ..	Renchler Sta.	10,000	..	..	114	6½	6	..	2	..	5	5	37½	..	40	130	2	2	7,000	1 00
S. Kroneberger.....	Belleville.....	200	..	Horse.	60	6	6	..	1	..	2	2	62½	..	20	180	2	2	1,200	1 25
F. Winter.....	..	900	..	..	55	6½	6	..	2	..	2	2	62½	..	20	200	1	1	1,300	1 25
Union Co.....	Millstadt.....	3,000	..	Steam.	47	6	6	..	..	..	1	1	..	..	..	..	..	120	1 25	
L. Faborer.....	French Vill..	60	Drift..	Hand.	100	5½	6	..	1	..	..	..	..	..	..	..	..	120	1 25	
James Charlton.....	..	2,000	..	Mule.	100	7	6	..	2	..	2	2	62½	..	..	..	..	300	1 25	
Mascoutah Coal Co ..	Mascoutah ..	9,000	Shaft.	Steam.	160	..	..	..	..	..	..	..	..	..	..	..	..	5,135	1 50	
Totals.....	.....	\$631,731	.....	.....	.....	.....	.....	.....	.....	.....	1,227	1,512	\$0 47½	27	2	14,300	387	1,067,270	\$0 81	

d. Machine men.
a. Sinking escapement.
b. New mines.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.							EMPLOYES.						PRODUCT.				
			Drift, slope or shaft.	Steam.	Shaft.	Horse.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	P.-R.	No. of places of egress.	Ventilation, by fan, furnace or otherwise?	No. of other employes in and about mine.	No. of days worked during the year.	No. of kegs of powder used during year.	No. men killed during year.	No. of men injured (so as to lose time).	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at the mine.
																		Winter.....		
																		Summer.....		

STATISTICS OF LABOR.

JACKSON COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYEES.				PRODUCT.		
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam....	Long-wall, or pillar and room workings.....	No. places of egress.....	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	Price per ton paid for mining.	No. of tons of coal produced (including nut coal.)	Average value of coal per ton at the mine.....
										Winter.....	Summer.....		
												</	

RANDOLPH COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYEES.				PRODUCT.							
			Drift, slope or shaft.	Steam, horse or hand-power.	Depth of coal below the surface—feet.	Thickness of coal—feet and inches.	Geological No. of seam.	Long-wall, or pillar and post workings.	No. of places of egress.	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd.	No. of days worked during the year.	No. of kegs of powder used during the year.	No. men killed during year.	No. of men injured (so as to lose time).	Price per ton paid for mining.	No. of tons of coal produced (including nut coal).	Average value of coal per ton at the mine.
										Winter	Summer							

WILLIAMSON COUNTY—1894.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.										EMPLOYER.						PRODUCT.	
			Drift, slope or shaft.....	Steam, horse or hand-power.....	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.....	Geological No. of seam....	Long-wall, or pillar and room workings.....	No. of places of egress.....	Ventilation, by fan, furnace or otherwise?	Number of miners employ'd Winter..... Summer.....	No. of other employees, in and about mine.....	No. of days worked during the year.....	No. of kegs of powder used during the year.....	No. men killed during year.....	No. of men injured (so as to lose time)	Price per ton paid for mining. Winter..... Summer.....	No. of tons of coal produced (including nut coal).....	Average value of coal per ton at the mine.....	
Carbondale Coal and Coke Co.....	Cartersville ..	\$60,000	Shaft.	Steam	60	9	7	P.-R.	2	Pur..	100	104	30	230	1,100	.....	\$0 60	64,912	\$0 95
Carbondale Coal and Coke Co.....	"	.....	Slope	"	60	9	7	P.-R.	2	"	90	90	35	140	300	.....	47½	41,823	95
Adam Young.....	"	300	Shaft.	Horse.	17	9	7	P.-R.	2	"	1	2	1	235	16	.....	60	1,380	1 00
J. B. Willeford.....	Marion.....	300	Drift.	"	20	6	5	P.-R.	1	"	5	5	1	200	5	.....	50	10,000	1 15
Other stripplngs in Co.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	4	1	.....	.....	.....	50	7,500	1 00
Totals.....	.....	\$60,000	.....	.....	.....	.....	.....	.....	.....	.....	190	205	65	825	1,920	.....	\$0 53	127,615	\$0 97½

SALINE COUNTY—1884.

[illegible]

STATISTICS OF LABOR.

CLINTON COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.		EMPLOYES.				PRODUCT.															
Joseph Hanke	Trenton.....	\$50,000	Shaft.	Steam.	320	5½	6	P.-R.	2	St.m.	Number of miners employ'd	Winter.....	Price per ton paid for mining.	No. of men injured (so as to lose time).....	No. men killed during year	No. of kegs of powder used during the year.	No. of days worked during the year.....	No. of other employes, in and about mine	Summer.....	48,007	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine.....		
												Summer.....											1	2	400	195	380	250	33	74	56	$0 50	$0 62½	18,389	$1 25
											Breese Mining Co.	Breese.....	17,500	400	8	6	..	1	Fan..	40	30	7	2	..	595	530	40	50	60	61,389	$1 19½
86	114	\$0 50	\$0 61	3	\$1 19½																			
Totals.....	.....	\$67,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

WASHINGTON COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYES.				PRODUCT.								
			Drift, slope or shaft.....	Steam.	Depth of coal below the surface—feet.....	Thickness of coal—feet and inches.. ..	Geological No. of seam.....	Long-wall, or pillar and room-workings.	No. of places of egress. .	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	Price per ton paid for mining.	No. of men injured (so as to lose time).....	No. men killed during year.	No. of kegs of powder used during the year.....	No. of days worked during the year.....	No. of other employes in and about mines	No. of tons of coal produced (including nut coal.).....	Average value of coal per ton at the mine.....
										Winter.....	Summer.....								
Hortman & Yock.....	Nashville.....	\$7,500	Shaft.	Steam.	420	8	6	P.-R.	1	Fur.	35	\$0 62½	...	...	720	300	8	25,415	\$0 91
G. W. Brown.....	Dubois.....	6,000	...	...	300	6	6	...	2	...	35	50	...	...	700	240	12	20,000	90
Totals.....	.....	\$13,500	.....	.....	.....	.....	.....	.....	.....	.....	70	\$0 56	.....	.....	1,420	540	20	45,415	\$0 90½

MARION COUNTY—1884.

Name of firm, company or individual operating mine.	Town or post-office nearest the mine.	Capital employed.	CHARACTER OF PLANT.				EMPLOYEES.				PRODUCT.		
			Drift, slope or shaft.....	Steam, horse or hand-power	Depth of coal below the surface	Thickness of coal—feet and inches.	Geological No. of seam....	Long-wall, or pillar and post workings	No. of places of egress	Ventilation, by fan, furnace or otherwise?.....	Number of miners employ'd	Price per ton paid for mining.	No. of tons of coal produced (including nut coal)	Average value of coal per ton at the mine .....
										Winter	Summer.....		

RECAPITULATION BY COUNTIES.

Counties.	Capital em- ployed.	Acreage.....	No. of mines.....	No. of mines shipping coal....	No. of mines in local trade.....	Kinds of power employed	Kinds of openings.	Modes of working coal, pillar and room, long-wall, single and double entry.	No. of miners and other employees.		Average No. of days worked..	No. of kegs of powder used....	No. of men killed.....	No. of men injured so as to lose time.....	Average price per ton for mining.		No. of tons of coal produced, including nut.....	Average price of coal per ton at the mines.....	No. of mines with escapement shaft.....	No. of mines without escape- ment shaft.....	Kinds of power used for ventila- tion.			
									Miners, summer...	Miners, winter.....					Summer....	Winter.....					Fan.....	Furnace.....	Steam jet....	Natural.....
St. Clair.....	\$631,731	8,815	70	58	12	55	2	70	81,227	1,512	213	12,923	2	27	\$0 47½	\$0 53½	1,067,270	\$0 81	49	21	857	510	5	...
Perry.....	131,400	2,635	15	12	3	12	1	15	8,326	461	200	6,987	1	5	61	62½	255,868	98	9	6	5	2	...	...
Jackson.....	1,333,000	4,540	5	5	...	3	...	5	335	373	231	7,100	3	...	71	80	288,770	1 39	7	...	...	...	...	...
Randolph...	92,600	1,590	9	6	3	2	1	9	53	100	182	1,438	1	7	54	62½	46,535	92¾	4	5	...	...	...	...
Williamson.	60,600	1,063	4	2	2	2	1	4	180	205	206	1,920	...	...	55	52	127,615	97¾	3	1	...	...	...	...
Saline.....	32,135	988	7	4	3	1	3	7	199	164	199	1,023	...	...	75	87½	95,967	1 36	4	3	...	...	...	...
Clinton.....	67,500	400	2	2	...	2	...	...	86	114	265	595	1	3	50	61¾	61,339	1 19½	1	1	...	...	...	...
Washington	13,500	196	2	2	...	1	1	...	60	70	270	1,420	...	...	56	56	45,415	1 90½	1	1	...	...	...	...
Gallatin.....	25,150	4,080	2	1	1	1	1	2	21	73	230	485	...	...	75	75	30,400	1 15¾	...	2	...	...	...	...
Marion.....	60,000	1,030	2	1	...	2	...	...	136	200	250	2,343	...	1	62½	75	109,000	1 00	1	1	2	...	...	...
Totals.....	\$2,447,616	25,297	118	94	24	81	9	118	2,572	3,272	225*	35,634	8	46	\$0 59	\$0 68	2,128,230	\$1 15¾	79	41	16	94	10	...

* Average for 112 mines.

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THE MANUFACTURE OF DRAIN TILE IN ILLINOIS.

This Bureau having been called upon by the Illinois Tile-Makers' Association, at their last annual convention, for statistics of drain tile manufacture in Illinois, and recognizing the interest and importance which has attached of late years to this comparatively recent feature both of agriculture and manufactures in this State, an enquiry has been instituted with a view to procuring such information as was possible on this subject.

So far as it has been possible to ascertain there has been no compilation of a similar scope and character undertaken or made in this or other States,* beyond some broad estimates of a general character, which in the absence of authoritative figures have been accepted as facts. There are also comparatively few even of well stocked libraries which contain any assortment of valuable works on the subject either of the manufacture of drain tile, or the science of underground drainage, and the periodical literature devoted to these subjects is meagre in the extreme. There is accordingly little opportunity afforded either for comparisons or for the verification of the tables here compiled, with established data.

The following exhibit will, however, give a good approximate view of the progress of the industry of tile manufacture in this State since 1875, and its extent and character at the beginning of the present calendar year. The information on which these tables are based has been procured, first, from the various township assessors of the State, as to the number, name and address of each tile maker in their respective towns; and second, from the makers themselves as to the character and product of their respective factories. Compilations made upon data furnished by so great a number of persons must necessarily involve some elements of uncertainty, but as far as possible these have been reduced to the minimum by the elimination of obscure or doubtful returns. In regard, however, to the number of factories reported to us by the assessors, as in actual existence, the only question which can arise is as to whether the whole number has been given. The presumption is that some have been omitted, and that the whole number in the State is greater than that reported. Our revised directory embraces now 536 factories, although at the time of making the tables the whole number

*The Bureau of Statistics of Indiana, in a report just issued, gives a table of 387 tile factories in that State, employing \$759,562 capital, and 1,517 men. Value of product \$1,133,515.

known was 526, and the estimates for the State will be found to be based on that number. In general it is a fair presumption that the summaries arrived at by this investigation are rather too small than too large. In regard to the accuracy of the returns which have been made, it is believed that, inasmuch as the identity of the factories is obscured, and the motives for exaggeration are not more or greater than those for an underestimation, the statements made may be accepted as practically exact and reliable.

Upon an examination of the returns from township assessors it was found that there were in all (at that time) 526 tile factories, located in about four hundred towns and villages, and in seventy-five different counties of the State. These 526 tile makers were each addressed, and a certain line of information of a general character solicited, with a tender of blanks and postage with which to make returns. In response 330 manufacturers made specific statements to the Bureau as to their date of establishment, capital invested, the number and wages of their employes, their methods of manufacture and of drying, the amount and value of their product, the kinds and quantities of fuel consumed, and other minor items. The factories reported were of all kinds and sizes, from those of the most costly equipment to those of the most primitive construction and limited capacity; and it was assumed that those failing to report were equally of all classes, and that these 330 factories, constituting 63 per cent. of the whole, were a fair exponent of the whole, and should be so considered. Upon these returns, consequently, the following tables are based, and the summaries for the State are deduced. These in brief may be given as follows:

Number of counties in which drain tile is manufactured.....	75
Number of factories.....	526
Amount of capital employed.....	\$3,794,000 00
Number of employes.....	5,495
Amount paid in wages during the year.....	\$1,434,163 00
Average number of months in operation.....	7
Whole number of tile made.....	176,962 821
Total cost of fuel.....	\$504,960 00
Estimated home value of total product.....	\$3,960,958 00

A noticeable feature illustrated by these returns, and exhibited in detail by Table VI, is the recent rapid growth of this industry, and of the practice of tile-drainage which that growth implies. From an examination of the dates of establishment of the different factories it is found that only about 5 per cent. of the present number were in operation in 1875, and that in 1880 there was only 32 per cent. of the present number, then in existence; showing that the really great impetus in this direction has been developed within the three years last past.

The distribution of these factories throughout the State is also a consideration of interest, [and somewhat indicative] of the general character of the surface.

Neither the northern nor the southern extremities of the State have tile factories, the former being a naturally rolling country and the latter more generally covered with timber. On the other hand the great central portion of the State, especially east of the Illinois river, has in round numbers about four-fifths of all the tile factories of the State. This district embraces what is known as the corn and

wheat belt, and is distinguished for its uniform fertility. The greatest number of these factories is found in that group of counties lying on the eastern border of the State, in the neighborhood of Vermilion county. In six of these counties there are 116 tile factories. The greatest number in a single county is found in La Salle county, which has 27. Vermilion county has 26, Edgar 22, Iroquois, Champaign and Woodford 18 each, McLean 17, and Douglas and Coles 16 each, while almost every county throughout the great grain producing districts has from 1 to 15. That there is a demand for still others at many points, and also the natural facilities for establishing them, has been demonstrated by our correspondence on the subject, and such localities as are in need of the factories are indicated on a subsequent page.

The relative magnitude of the factories already in operation, as indicated by the amount of capital employed and the amount of annual product, is fully shown in the tables. From these it appears that 46 per cent. of the whole number of factories employ less than \$5,000 capital each, and that 54 per cent. employ more than that sum. Of the latter number 60 per cent. have from \$5,000 to \$10,000 each invested, 20 per cent. have from \$10,000 to \$15,000, 11 per cent. have from \$15,000 to \$25,000, and 8 per cent. have over \$25,000 each invested in the plant and business. Three of these larger establishments are equipped at a cost of \$40,000 each, three at a cost of \$50,000 each, one at a cost of \$70,000, and another at a cost of \$100,000.

Measured by the amount of their manufactured product, there are found 12 establishments in the State which produced from 1,000,000 to 4,000,000 drain tile of all sizes during the year ending January 1, 1884. Two firms in McLean county produced 5,000,000, two in Will county produced 4,810,510, one in Rock Island 3,500,000, one in Warren 2,278,400, while Champaign, Greene, Grundy, Logan, Macon, Stark and Warren counties each have single factories producing a million or more tile annually. At the head of the list stands the establishment of N. B. Heufer & Co., of Bloomington, with a reported annual product of 4,000,000. The next in order is the Argillo Works, of Carbon Cliff, Rock Island county, with a product of 3,500,000, and the third is the Monmouth Mining and Manufacturing Company, showing a product for last year of 2,278,400.

To illustrate what sizes of drain tile are principally in use and demand, a table has been prepared showing the number of each size made by 184 factories in 53 counties. This gives 16 sizes ranging from two to fourteen inches in diameter. By far the greater number are 3, 4, and 5 inch tile, and the percentages of each are as follows: Of the whole number made 29+ per cent. is 4 inch tile, 25+ per cent. is 3 inch, and 16+ per cent. is 5 inch tile, while the remaining 31— per cent. is divided irregularly among the larger sizes—very few smaller than 3 inch being made. Of the 6, 7, and 8 inch there are about 23 per cent. of the whole, while the 10 and 12 inch sewer pipe constitute about 6 per cent. of the whole.

We find also upon an examination of the character of these tile factories that 77 per cent. of them are using steam power for manufacturing, and steam for drying the product, the remainder being

the more primitive establishments operated by horse power and dependent upon open air drying. When, however, the relative product of these two classes of factories is considered, it is found that the steam factories produce 92 per cent. of all the tile made, so that it is practically a steam industry and is doubtless becoming more so in reality every year.

This fact leads to the consideration of the kind and quantity, and the cost of the fuel which this branch of manufacture requires. A subsequent table will show that the actual consumption of fuel during the past year by 268 steam factories was 119,406 tons of coal at an average cost of \$2.10 per ton, and 19,501 cords of wood at an average cost of \$2.46 per cord, or a total cost for these factories of \$299,373 for the fuel necessary to make 101,392,228 tile, or an average of \$2.96 per thousand. The average cost of fuel per thousand tile for the whole 330 factories of all kinds is \$2.88

The probable total cost of fuel,—the amount annually disbursed in the State by tile makers for the most part to coal men,—is somewhat over half a million dollars.

The statistics of employés and of wages will be found in Table II. Labor in this industry is for the most part unskilled, and these tile works are usually established and carried on in small towns in rural communities—where labor can be had at about farm-hand rates—and where the cost of living is at a minimum. We consequently find that for laborers the average wages paid is \$33 a month.

For burners, however, who must possess some special skill and experience, the average pay is \$47 a month, and the range is from \$32, the pay of a common laborer, to \$66 in the county averages, although there are instances in which individual burners in the larger establishments receive as high as \$75 and \$80, and in one factory a head-burner or foreman of kilns receives \$90 a month.

The wages of engineers vary of course with the character of the work and of the machinery with which they are entrusted. The ultimate average for the State is \$43 a month, though an examination of the tables will indicate that from \$50 to \$60 is the probable pay of skilled engineers. The wages of foremen, where such are employed, depend almost wholly upon their peculiar qualifications and the degree of their responsibility. The highest salary reported for this service is \$200 a month, while in small establishments where the proprietor is his own foreman the figures given are merely nominal, and serve only to reduce the general average, which is only \$53.

The whole number of men employed in tile making is found to be 5,435, and the aggregate amount disbursed annually in wages is \$1,434,163 for an average of seven months work. This average of the number of months in which these factories were in operation last year is, however, very much less than would appear in subsequent years, owing to the fact that 40 per cent. of the factories reported were started during the year for which they make returns, and many of them had barely commenced operations. These moreover, almost without exception, are the better class of factories, equipped with improved machinery and appliances, and designed to operate, if necessary, continuously throughout the year.

This presentation of the statistics of this youngest industry in the State is designedly confined to the manufacture rather than the use of drain tile. The advantages arising from the use of tile on lands of almost every kind are abundantly demonstrated and generally recognized; and it is of course the economic value of drainage in agriculture which has given rise and prosperity to the business of tile making. The manufacture itself has, however, attained an importance of its own as a new element in the industrial prosperity of the State, aside from its results upon the productiveness of the soil. This view of tile manufacture in Illinois is presented here, and the fact is brought to light that within a period virtually of about five years, over three millions of capital has found employment in this industry; that by it about 6,000 men directly and many more indirectly, have been given new work and wages; that it has stimulated both mining and transportation, and given a new impetus to the local trade of over four hundred of the towns and villages of the State in which its factories have been established. In view of the claim made by agriculturists that the judicious use of drain tile increases the productiveness of average Illinois land at least 25 per cent., and of the fact that such possibilities have only of late years become known, and of the further consideration that a vast proportion of the State is susceptible to this improvement by this method, it is not too much to expect such a continuous and increasing demand for drain tile as shall establish the permanence and prosperity of this industry, and very largely extend its field of operations.

TABLE I.

Table I affords a comprehensive summarized view of all the facts brought out by the returns made to this office aggregated by counties. The subsequent tables form a more specific analysis, the items in the first table being supplemented by information of a character which renders possible a fuller comparison than can be shown in a table which is simply a recapitulation.

This table contains a statement of the number of factories in each county from which returns have been received, the amount of capital invested, the number of employes, the average monthly wages paid to each class, the total amount paid during the year for labor, and the number of months in operation, the number of kilns, the kind of power used, the methods of manufacture and drying, the whole number of tile made and its value, together with the kind and amount of fuel used in the respective factories, its average value per ton or cord, and its total cost. It appears from this presentation that the 350 factories from which replies were received have an aggregate capital invested of \$2,381,751, that they employ 3,412 hands, that the total amount of wages paid during 1883 was \$882,960, that the total cost of fuel was \$316,921 and that the total product is 109,836,393 tile, the value of which was \$2,459,662.

TABLE I.—Showing Summaries

COUNTIES.	Number of Factories reported....	Capital reported..	Number of Employees.....	AVERAGE MONTHLY WAGES OF—				Total Wages Paid	Number of Months in Operation..	Number of Mills..	KIND OF POWER USED.	
				Foremen..	Engineers.	Burners..	Laborsers..				Horse.....	Steam.....
Brown.....	2	\$7,800	25	\$40	\$45	\$46	\$31	\$4,980	5	4		2
Bureau.....	4	\$1,500	53	47	47	48	32	12,062	6	11		4
Cass.....	1	6,000	8	35	52	65	39	2,540	6	2		2
Champaign.....	16	15,000	153	72	47	50	31	35,260	7	33	2	14
Christian.....	4	15,800	24	39	41	52	34	3,010	4	6	1	3
Clark.....	2	4,900	13			52	25	950	6	3	1	1
Clay.....	1	1,000	3			32	26	300	3	1	1	
Coles.....	13	80,000	106	53	42	41	30	18,599	7	29	4	9
Cook.....	1	5,000	7				40	1,820	7	1		1
Crawford.....	2	7,000	10	37			26	1,158	6	2		2
Cumberland.....	4	8,000	20	37	37	37	20	2,853	5	4	2	3
DeKalb.....	4	67,000	59	64	56	60	36	27,240	11	10		4
DeWitt.....	9	50,000	74	40	41	42	33	9,947	6	14	2	7
Douglas.....	12	47,950	79	48	42	51	31	18,527	6	17	1	11
DuPage.....	1	13,000	10		30	45	32	3,500	7	4		1
Edgar.....	15	50,100	84	39	35	36	31	11,369	6	12	3	12
Edwardsville.....	2	7,000	13	40	34	31	29	2,181	5	3		2
Efingham.....	1	3,000	6		39	52	32			2		1
Ford.....	4	23,894	50	65	50	45	36	8,912	7	5		4
Fulton.....	10	73,184	95	47	36	47	32	16,745	7	17	3	7
Gallatin.....	2	13,200	10				28	10,150	3	2	2	
Greene.....	5	39,754	73	55	42	50	33	16,344	6	10		5
Grundy.....	1	15,000	15	83	50	60	39	7,600	12	4		1
Hancock.....	4	21,000	27	50	40	50	29	6,742	4	5	1	3
Henry.....	8	37,000	70	53	40	50	37	14,931	6	16	1	7
Iroquois.....	11	50,000	97	54	38	42	34	19,680	6	19	3	8
Jasper.....	1	5,000	8		35		22	693	3	2		1
Kane.....	3	45,500	34	75	45	45	32	7,029	10	7		3
Kankakee.....	1	8,000	15	50	45	55	34	4,500	8	2		1
Kendall.....	3	26,500	36	50	47	60	37	6,970	7	7		3
Knox.....	5	50,500	63	78	51	33	33	14,442	9	9	1	4
LaSalle.....	14	174,583	243	68	48	50	34	66,510	8	43	1	13
Lee.....	3	14,000	26	61	30	61	30	6,355	6	5		3
Livingston.....	12	64,000	112	60	44	61	35	24,009	6	23	3	9
Logan.....	7	66,000	107	52	45	53	37	50,783	7	24		
McLenn.....	15	123,340	219	50	45	54	32	56,844	7	36	2	13
Macon.....	10	104,500	145	54	46	49	34	42,781	7	32	2	14
Macoupin.....	4	29,000	42	45	44	50	35	12,944	6	9	1	3
Madison.....	1	5,000	8	50	40	40	32	700	3	1		1
Marion.....	1	1,500	4						4	1	1	
Mercer.....	5	18,500	38	44	44	39	33	9,935	6	9	2	3
Montgomery.....	1	20,000	22		50	40	3	8,000	12	5		1
Morgan.....	3	27,500	52	70	45	60	34	13,484	9	9		3
Moultrie.....	5	29,000	45	36	37	38	31	9,610	7	12		5
Ogle.....	3	45,000	35	62	46	65	38	8,376	5	7		3
Peoria.....	4	8,000	19	44	41	40	27	2,820	5	4	2	3
Platt.....	4	26,000	45	75	51	45	35	13,572	8	10		4
Pike.....	1	3,000	25	60	60	60	39	5,200	12	3		1
Putnam.....	4	11,500	26	50	41	44	33	6,200	6	6	2	2
Richland.....	1	2,000	6	32	32	32	32	200	2	1		1
Rock Island.....	3	106,500	66	52	49	42	29	31,700	10	7	1	3
St. Clair.....	1	10,000	8		50	45	34	2,540	7	3		1
Sangamon.....	6	57,000	84	78	47	48	36	25,400	8	14		6
Schuyler.....	3	15,800	26		31	45	31	6,000	5	5		3
Scott.....	1	2,000	71			35	30	841	4	2	1	

and Averages by Counties.

METHOD OF MANUFACTURE		METHOD OF DRYING						Whole Number of Tide made 1881	Value of Product.	FUEL USED.				Total Cost of Fuel
Plunge....	Augur....	Natural....	Steam....	Furnace....	Stove & Furnace....	Stove & Furnace....	Natural & Furnace....			Tons of Coal....	Av. Value per Ton	Cords of Wood....	Av. Value per Cord	
.....	3	1	.....	.....	.....	.....	.....	400,000	\$8,000	762	\$2 50	11	\$2 25	\$1,389
.....	4	2	1	1	.....	.....	.....	1,100,000	25,500	1,950	1 95	75	3 00	4,035
.....	1	1	.....	.....	.....	.....	.....	741,000	2,500	250	2 00	.....	.....	500
4	12	4	1	.....	5	.....	.....	4,531,877	118,710	7,519	2 35	670	2 19	19,028
1	3	2	1	.....	1	.....	.....	415,000	9,088	178	2 18	560	2 46	1,768
.....	1	1	.....	1	.....	.....	.....	140,000	4,600	80	1 60	109	1 05	248
.....	1	1	.....	.....	.....	.....	.....	5,000	300	.....	.....	9	2 00	60
6	7	1	.....	.....	1	2	2	3,366,829	102,128	1,880	2 24	2,282	2 11	9,061
.....	1	1	.....	.....	.....	.....	.....	203,000	3,500	260	3 40	.....	.....	884
2	.....	2	.....	.....	.....	.....	.....	408,700	11,091	.....	.....	213	1 00	213
.....	2	4	.....	.....	.....	.....	.....	547,500	11,285	340	2 02	513	1 77	1,598
.....	4	1	1	.....	2	.....	.....	2,750,000	65,940	3,537	3 57	10	4 25	13,916
3	6	7	2	.....	.....	.....	.....	2,162,846	48,273	1,360	2 30	1,598	2 20	6,891
1	11	1	2	1	2	.....	.....	2,504,600	51,945	2,078	2 41	1,276	2 64	8,964
.....	1	1	.....	.....	.....	.....	.....	600,000	16,500	500	3 65	.....	.....	1,825
.....	10	13	2	.....	.....	.....	.....	1,649,150	51,899	964	2 02	1,744	1 91	9,296
5	.....	2	.....	.....	.....	.....	.....	207,784	3,704	120	1 00	267	1 60	547
.....	1	1	.....	.....	.....	.....	.....	125,000	.....	15	3 00	100	2 00	245
3	5	7	3	.....	.....	.....	.....	877,504	18,850	1,104	2 62	.....	.....	2,885
5	.....	.....	.....	.....	.....	.....	.....	2,587,100	52,700	5,134	1 52	.....	.....	7,838
.....	2	2	.....	.....	.....	.....	.....	75,000	1,000	.....	.....	100	75	75
.....	1	3	1	1	.....	.....	.....	2,103,000	151,091	1,330	2 33	515	2 88	4,584
.....	1	1	.....	.....	.....	.....	.....	1,200,000	25,000	1,750	2 25	.....	.....	3,937
2	2	3	1	.....	.....	.....	.....	365,000	6,025	646	2 50	56	3 45	1,785
1	7	.....	.....	.....	1	.....	.....	1,763,353	36,449	2,415	2 03	130	2 42	5,217
.....	4	11	.....	.....	.....	.....	.....	1,997,410	42,550	1,659	2 52	1,335	3 14	7,047
1	.....	1	.....	.....	.....	.....	.....	175,000	3,500	170	2 25	.....	.....	382
.....	3	2	.....	.....	1	.....	.....	1,694,000	12,500	847	3 50	185	3 50	3,472
.....	3	.....	.....	.....	1	.....	.....	375,000	15,000	425	2 75	.....	.....	1,169
.....	2	1	.....	.....	.....	.....	.....	773,530	15,500	1,120	2 71	80	3 87	3,318
.....	2	1	.....	1	.....	.....	.....	890,127	19,180	1,670	1 52	.....	.....	2,522
3	11	6	3	1	2	1	1	12,539,000	184,250	13,078	1 94	268	2 43	26,240
.....	3	.....	.....	.....	.....	.....	.....	263,500	8,258	340	3 04	105	4 34	1,612
5	7	4	.....	.....	2	.....	.....	9,600,101	81,205	4,162	2 36	625	2 52	11,410
.....	7	3	.....	.....	.....	.....	.....	3,528,005	93,579	6,999	2 04	290	2 82	12,156
.....	9	11	3	.....	1	.....	.....	8,617,000	139,407	10,880	2 36	573	2 95	27,194
2	14	11	5	.....	.....	.....	.....	4,867,018	117,813	6,045	1 99	1,082	2 47	15,903
1	1	1	2	.....	1	.....	.....	1,000,000	23,575	425	1 36	440	2 69	1,763
.....	1	.....	.....	.....	.....	.....	.....	35,000	925	70	2 50	.....	.....	175
1	.....	1	.....	.....	.....	.....	.....	20,000	500	20	1 00	.....	.....	20
.....	3	5	.....	.....	.....	.....	.....	804,500	19,325	1,380	2 04	170	2 65	3,270
.....	1	1	.....	.....	.....	.....	.....	500,000	.....	1,123	1 82	.....	.....	2,036
.....	5	2	.....	.....	.....	.....	.....	1,381,994	27,200	3,050	1 99	350	2 57	6,976
.....	5	3	.....	.....	2	.....	.....	1,400,000	31,000	1,170	2 67	770	2 23	4,842
.....	3	.....	2	.....	1	.....	.....	297,154	15,050	1,294	3 00	.....	.....	3,857
.....	1	4	.....	.....	.....	.....	.....	630,000	13,700	400	1 98	.....	.....	901
3	4	.....	2	1	1	.....	.....	1,410,000	26,000	2,105	2 44	.....	.....	5,180
.....	3	1	.....	.....	.....	.....	.....	180,000	15,000	90	4 50	300	3 00	1,305
2	2	3	.....	.....	1	.....	.....	621,000	18,450	317	3 25	577	2 51	2,577
.....	1	1	.....	.....	.....	.....	.....	19,000	500	.....	.....	50	2 00	100
.....	2	1	1	1	.....	.....	.....	3,557,900	58,062	3,400	2 26	10	3 00	7,706
.....	1	1	.....	.....	.....	.....	.....	300,000	6,000	435	1 25	.....	.....	544
.....	6	1	.....	.....	1	.....	.....	2,026,000	51,000	4,850	1 55	715	2 30	9,211
.....	3	2	1	.....	.....	.....	.....	73,000	13,300	690	1 53	.....	.....	1,464
1	.....	1	.....	.....	.....	.....	.....	105,000	2,100	.....	.....	210	2 20	426

Table I.—

COUNTIES.	Number of Facto- ries reported....	Capital reported..	Number of Em- ployes	AVERAGE MONTHLY WAGES OF—				Total Wages Paid	Number of Months in Operation	Number of Kilns..	KIND of POWER USED.	
				Foremen..	Engineers.	Burners ...	Laborers..				Horse.....	Steam.....
Shelby	5	\$21,400	31	\$40	\$44	\$39	\$31	\$5,122	5	8	2	2
Stark	2	15,000	29	50	45	62	57	6,048	2	4	—	—
Tazewell	10	52,100	100	51	40	41	30	22,122	6	21	3	—
Vermilion	15	63,300	105	40	39	42	28	21,993	8	24	4	11
Wabash	2	5,000	10	39	39	39	22	900	4	2	1	1
Warren	6	73,300	93	40	37	54	36	7,980	7	13	—	6
Wayne	1	700	5	—	—	—	—	—	—	1	1	—
White	3	19,800	18	35	—	35	30	1,500	6	4	1	3
Will	6	153,500	146	81	44	51	37	69,499	8	26	1	5
Woodford	10	79,200	116	60	40	42	33	50,344	8	28	3	—
Totals	330	\$2,381,751	3,412	\$53	\$43	\$47	\$33	\$882,960	7	676	62	28

Continued.

METHOD OF MAN'FACT'RE		METHOD OF DRYING.						Whole Number of Tile made 1883 ..	Value of Product.	FUEL USED.				Total Cost of Fuel
Plunge.....	Augur.....	Natural....	Steam.....	Furnace....	Natural & Steam.	Steam & Furnace.	Natural & Furnace.			Tons of Coal.....	Av. Value per Ton....	Cords of Wood.....	Av. Value per Cord.	
2	3	5	11	4	1	1	1	711,000	\$15,150	135	\$2 24	950	\$2 23	\$2,428
1	2	1	1	1	1	1	1	2 198,000	15,500	1,320	2 12	100	3 00	3 100
1	7	11	4	1	1	1	1	3,473,752	62,255	1,912	2 54	2,033	2 57	9,223
1	7	11	4	1	1	1	1	2,918,752	73,091	2,918	1 51	2,245	2 51	16,037
1	7	11	4	1	1	1	1	110,000	2,100	160	1 78	160	1 78	285
1	6	3	1	1	1	1	1	3,205,400	76,560	3,800	1 50	75	3 50	7,900
1	6	3	1	1	1	1	1	25,000	400	15	2 00	15	2 00	30
1	6	3	1	1	1	1	1	276,134	3,425	120	1 00	517	1 56	926
1	5	1	2	2	1	1	1	5,560,964	169,293	4,209	2 05	22	4 10	8,627
1	5	1	2	2	1	1	1	5,707,060	142,550	5,242	1 18	686	2 87	8,186
103	227	302	67	12	36	3	9	109,836,393	\$2,459,662	122,736	\$2 16	25,281	\$2 01	\$315,921

TABLE II.

Table II relates entirely to the compensation of employés. It shows the number of factories making reports in each county, with the whole number of employés reported, the whole number of factories in each county and the total number of employés, the latter item being computed by ascertaining the average number of employés in the reporting factories in each county, and by multiplying the same by the whole number of factories known to be in operation in that county. It also shows the average monthly wages paid to each of the four classes of employés, viz: foremen, engineers, burners, and common laborers, the average number of months in operation for all the reporting factories in each county, the total amount of wages reported to have been paid, and a computation, based on the latter item, of the whole amount of wages estimated to have been paid by all the factories of each county and the State.

It appears from this table, assuming the estimates therein to be fairly made, that the whole number of workmen employed at the 526 factories known to have been in operation in 1883 was 5,435, and that the whole amount of wages paid reached the sum of \$1,434,163, being an average per factory of \$2,726. The largest number of persons employed at any one factory is 100, the smallest 3, and the average number per factory a fraction over 10.

In regard to the wages paid to employés, even of the same class, a great disparity exists. The monthly compensation of foremen varies from \$30 to \$90, that of engineers from \$31 to \$60, that of burners from \$31 to \$65, and the pay of ordinary laborers from \$18 to \$40. The average wages paid these four classes are, respectively, to foremen \$53 per month, to engineers \$43, to burners \$47, and to laborers \$33.

An examination of the figures shows that while 18 factories were running for periods of only two to four months in the year, others were operated as "winter factories," that is, their facilities for drying were such as to admit of their working the year round. Still the average number of months worked by all the factories was only 7.

TABLE II.

COUNTIES.	Number of factories reported.	Number of employees reported.	Whole number of factories.	Whole number of employees, computed.	AVERAGE MONTHLY WAGES PAID TO				Average number of months in operation.	Aggregate amount of wages reported paid.	Total amt. of wages paid, computed....
					Firemen.	Engineers.	Burners.	Laborers.			
Brown.....	2	35	3	36	\$30	\$45	\$46	\$31	5	\$4,980	\$7,171
Bureau.....	4	55	4	55	47	47	48	38	5	12,062	12,062
Cass.....	1	8	4	32	65	52	63	39	6	2,500	10,000
Champaign.....	16	153	18	172	72	47	50	31	7	35,250	39,638
Christian.....	4	23	6	35	39	41	52	34	4	3,010	4,580
Clark.....	2	13	2	13	.....	.....	52	25	6	952	950
Clay.....	1	3	1	13	.....	.....	32	26	3	300	300
Coles.....	13	106	16	130	53	42	41	30	7	13,599	23,816
Cook.....	1	7	1	7	.....	.....	.....	40	7	1,820	1,820
Crawford.....	2	10	2	10	37	.....	.....	28	5	1,158	1,158
Cumberland.....	4	20	5	25	37	37	37	29	6	2,853	3,565
DeKalb.....	4	59	4	59	64	56	60	39	11	27,240	27,240
DeWitt.....	9	91	15	123	40	41	42	33	6	9,907	10,453
Douglas.....	12	79	16	105	48	42	54	31	6	18,327	24,624
DuPage.....	1	10	2	20	.....	30	45	32	7	3,500	7,000
Edgar.....	16	88	22	129	39	35	36	31	6	11,369	16,665
Edwards.....	2	13	2	13	40	34	31	23	5	2,181	2,181
Effingham.....	1	6	1	6	.....	39	52	32	.....	.....	.....
Ford.....	4	50	5	62	65	50	45	36	7	8,912	11,050
Fulton.....	10	95	11	105	47	36	47	32	7	16,745	18,507
Gallatin.....	2	10	3	15	.....	.....	.....	18	3	10,150	15,225
Greene.....	5	73	8	117	55	42	50	33	6	16,394	26,281
Grundy.....	1	15	3	45	33	50	60	39	12	7,600	23,400
Hancock.....	4	27	6	41	50	31	50	29	4	6,742	10,247
Henry.....	8	70	10	83	53	40	50	37	6	14,981	18,833
Iroquois.....	11	97	18	159	54	36	42	34	6	19,680	32,258
Jasper.....	1	8	1	8	.....	35	.....	28	3	603	603
Kane.....	3	34	4	51	75	45	45	32	10	7,020	12,780
Kankakee.....	1	15	4	60	50	45	55	34	8	4,500	18,000
Kendall.....	3	36	5	60	50	47	66	37	7	6,970	11,616
Knox.....	5	63	8	101	58	51	38	31	9	14,442	23,153
LaSalle.....	14	243	27	409	68	48	50	31	7	66,540	128,424
Lee.....	3	26	5	43	51	39	61	40	6	6,335	10,510
Livingston.....	12	112	20	188	60	44	61	35	6	24,029	40,334
Logan.....	7	107	7	107	52	45	58	37	7	50,783	50,783
McLean.....	15	219	17	248	50	45	50	32	7	56,314	63,860
Macon.....	16	145	25	226	54	46	49	31	7	42,781	66,679
Macoupin.....	4	42	6	63	45	41	50	35	6	12,941	19,416
Madison.....	1	8	3	24	50	40	40	32	3	700	2,100
Marion.....	1	4	3	12	.....	.....	.....	.....	4	.....	.....
Mercer.....	3	38	7	53	44	44	39	33	6	9,933	13,867
Montgomery.....	1	22	2	44	.....	50	40	33	12	9,000	18,000
Morgan.....	3	52	4	69	70	45	60	34	9	13,481	17,492
Monroe.....	5	45	8	72	36	37	38	31	7	9,610	15,376
Ogle.....	3	35	4	47	62	46	65	36	5	8,376	11,248
Peoria.....	4	19	11	53	44	44	40	27	5	2,920	8,145
Piatt.....	4	45	9	101	75	51	45	35	8	13,552	30,417
Pike.....	1	25	3	75	60	60	60	39	12	5,200	15,600
Putnam.....	4	26	5	32	50	41	44	33	6	6,200	7,628
Richland.....	1	6	1	6	32	32	52	32	2	200	200
Rock Island.....	9	66	4	98	52	49	42	29	10	31,700	42,266
St. Clair.....	1	8	1	8	.....	50	45	30	7	2,500	2,500
Sangamon.....	6	84	12	168	78	47	48	32	8	25,400	50,800
Schuyler.....	3	26	5	43	.....	31	45	31	8	6,800	11,247
Scott.....	1	7	3	21	.....	.....	35	30	4	841	2,523
Shelby.....	5	31	12	74	40	44	39	31	5	5,122	12,227
Stark.....	2	29	6	37	50	45	62	37	6	6,048	18,144

Table II—Continued.

COUNTIES.	Number of factories reported	Number of employees reported	Whole number of factories	Whole number of employees, computed	AVERAGE MONTHLY WAGES PAID TO				Average number of men in operation	Aggregate amount of wages reported paid	Total amt. of wages paid, computed.
					Firemen	Engineers	Burners	Laborers			
Tazewell	10	180	18	130	\$51	\$40	\$41	\$30	9	\$22,122	\$22,726
Vermilion	17	107	26	182	40	39	42	28	8	21,933	22,121
Wabash	2	10	2	10	39	39	39	22	4	960	960
Warren	1	53	8	124	40	37	54	30	7	7,880	10,600
Wayne	1	3	1	7							
White	3	18	7	18	35		35	30	6	1,600	1,300
Will	6	116	10	243	81	44	51	37	8	69,499	115,621
Woodford	10	14	18	209	60	40	42	33	8	50,844	36,726
Totals	59	3412	507	7257	\$2,740	\$2,411	\$2,733	\$2,048	411	\$882,960	\$1,306,403
Other Counties			25	258							67,500
Totals	59	3412	526	7495						\$882,960	\$1,424,103
Averages		10.3	10.4		\$53*	\$43*	\$47*	\$33*	7	\$2,700†	\$2,730†

*Average per county.

†Average per factory.

TABLE III.

Table III has reference specially to the character of the various establishments and the methods made use of both in making and drying.

It shows the number of kilns in use in 330 factories, the kind of power used in each, whether steam or horse power, the process of drying employed, whether by natural or artificial heat, or by a combination of both, the description of machines used, whether plunge or augur, and the total product for the year of the steam and horse power factories respectively. The whole number of kilns for 330 factories is 676, an average of a little more than two to each factory. This would indicate at least 1,100 kilns in the State. Horse power is used in but 61, or less than one-fifth of the whole number of factories reporting in 1883.

Many of these announce that during the present year steam power either has been or will be substituted. If we compare the product of the steam and horse power factories we shall find a still lower ratio. The number of tile made by the steam factories was 101,892,228, by the horse power factories 8,444,165, the latter being only 7.7 per cent. (or one-fourteenth) of the entire product. The method of drying by natural heat only is employed in 202 factories, steam heat only is used in 67 factories, and furnace heat only, in 12. In 36 both natural and steam heat is employed, in 8, steam and furnace heat, and in 9, natural and furnace heat. In by far the greater number of factories operated during the summer months only, natural heat is the only drying agency employed.

TABLE III.

COUNTIES.	Number of factories reported.	Number of kilns	POWER USED.		DRYING PROCESS.						HOW MADE.		PRODUCT OF	
			Horse	Steam	Natural	Steam	Furnace	Natural & Steam	Steam & Furnace	Natural & Furnace	Plunge	Augur	Steam Power Factories.	Horse Power Fact'ies
Brown	2	4			1			1				2	400,000	
Bureau	4	11		4	2	3	1					4	1,100,000	
Champaign	16	33	2	14	4	7		5			4	*12	4,130,877	401,000
Christian	4	6	1	3	2	1		1			1	3	240,000	175,000
Clark	2	2	1	1	1		1				1	1	100,000	40,000
Clay	1	1	1		1						1	1		16,000
Coles	13	29	4	9	7	1		1	2	2	6	7	2,976,709	390,120
Cook	1	1			1							1	208,000	
Crawford	2	2		2	2						2		408,700	
Cumberland	4	4	2	2	4						2	2	385,000	162,500
DeKalb	4	10		4	1	1		2				4	2,750,000	
DeWitt	9	14	2	7	7	2					3	6	1,928,816	234,000
Douglas	12	17	1	11	7	2	1	2			1	11	2,391,600	117,000
DuPage	1	4		1		1						1	600,000	
Edgar	15	18	3	12	13	2					5	10	1,422,150	227,000
Edwarda	2	3		2	2						2		207,184	
Effingham	1	2		1	1							1	125,000	
Ford	4	5		4	3	1					3	1	837,500	
Fulton	10	17	3	7	7	3					5	5	2,090,000	497,000
Gallatin	2	2	2		2						2			75,000
Greene	5	10		5	3	1						5	2,163,000	
Grundy	1	4		1	1							1	1,200,000	
Hancock	4	5	1	3	3	1					2		335,000	30,000
Henry	4	16	1	7	7			1			1	7	1,682,358	80,000
Iroquois	11	19	3	8	11						7	4	1,774,060	223,350
Jasper	1	2		1	1						1		175,000	
Kane	3	7		3		2		1				3	1,694,000	
Kankakee	1	2		1				1				1	975,000	
Kendall	3	7		3		1		1		1		3	773,530	
Knox	5	9	1	4	1		1			3	2	3	640,127	250,000
LaSalle	14	43	†1	13	6	3	1	2	1	1	3	11	11,759,000	800,000
Lee	3	5		3		3						3	263,500	
Livingston	12	23	3	9	7	2		2		1	5	7	3,108,620	562,541
Logan	7	24		7	4	3						7	3,528,005	
McLean	15	36	3	13	11	3		1			6	9	8,479,000	138,000
Macon	16	30	2	10	11	5					2	*14	4,757,018	110,000
Macoupin	4	9	1	3	1	2		1			1	3	1,078,000	20,000
Madison	1	1		1			1					1	35,000	
Marion	1	1	1		1						1			20,000
Mercer	5	9	2	3	5						2	3	710,500	94,000
Montgomery	1	5		1		1						1	500,000	
Morgan	3	9		3		2				1		3	1,384,994	
Moultrie	5	12		5	3			2				5	1,490,000	
Ogle	3	7		3		2		1				3	897,054	
Peoria	4	4	2	2	4						3	1	250,000	380,000
Platt	4	10		4		2	1	1				4	1,410,000	
Pike	1	3		1	1							1	180,000	
Putnam	4	6	2	2	3			1			2	2	313,000	368,000
Richland	1	1		1	1							1	19,000	
Rock Island	3	7	1	2	1	1	1				1	2	3,509,900	48,000
St. Clair	1	3		1	1							1	300,000	
Sangamon	6	14		6	3	1	1	1				6	2,025,000	
Schuyler	3	5		3	2	1						3	750,000	
Scott	1	2	1		1						1			185,000

* One of them also uses a plunge machine.

† This factory is operated by water power, but for convenience has been classed among the horse power factories.

Table III.—Continued.

COUNTIES.	Number of factor- ies reported.....	Number of kilns...	POWER USED.		DRYING PROCESS.						HOW MADE.		PRODUCT OF	
			Horse.....	Steam.....	Natural....	Steam.....	Furnace...	Natural & Steam.....	Steam & Furnace...	Natural & Furnace...	Plunge.....	Augur.....	Steam Power Factories..	Horse Power Fact'ies
Shelby.....	5	8	2	3	5	.....	.....	.....	.....	.....	2	3	596,000	175,000
Stark	2	4	.....	2	1	.....	.....	1	.....	.....	.....	2	1,450,000	658,400
Tazewell.....	10	21	3	7	9	.....	.....	1	.....	.....	3	7	2,328,000	745,720
Vermillion.....	15	24	4	11	11	4	.....	.....	.....	.....	8	7	2,173,000	745,720
Wabash.....	2	2	1	1	2	.....	.....	.....	.....	.....	2	.....	60,000	50,000
Warren.....	6	13	.....	6	3	1	.....	2	.....	.....	.....	6	3,145,400	60,000
Wayne	1	1	1	.....	1	.....	.....	.....	.....	.....	1	.....	.....	25,000
White	3	4	1	2	3	.....	.....	.....	.....	.....	3	.....	263,334	12,800
Will	6	26	1	5	1	2	2	1	.....	.....	1	*5	5,556,664	4,200
Woodford.....	10	28	3	7	6	1	.....	3	.....	.....	5	5	5,303,000	404,000
Totals,	330	676	†62	268	†203	67	12	36	3	9	103	127	101,392,228	8,444,160

* One of these also uses a plunge machine.
† Including one factory operated by water power.
‡ Only 329 factories specified the method of drying, that in Effingham county failing to give any information on this point.

TABLE IV.

Table IV contains the record of the amount and cost of fuel used in 268 steam factories and the amount of tile manufactured by the same. From the figures given it appears that in the manufacture of 101,372,228 tile, there were used 119,406 tons of coal, at an aggregate cost of \$251,349, and 19,501 cords of wood at an aggregate cost of \$48,024, making the total value of the fuel used \$299,373, which is an average cost of \$2.96 per thousand tile. It is proper to observe here that there may be a slight over-statement involved in this summary, arising from the fact that many tile makers also manufacture brick, and it is possible that some of these may have reported the gross amount of fuel used in the manufacture of both. It is believed, however, that any inaccuracy arising from this source is trifling. It should also be noticed that the amount and cost of fuel as given in this table differ materially from the figures given in Table I, which table includes both steam and horse-power factories, while only the former of the two classes is considered here. The variance in the cost of coal per ton and wood per cord, may be accounted for by the consideration that the horse-power factories use relatively a larger amount of wood and a smaller amount of coal than factories operated by steam. It follows that in a statement of the amount and cost of fuel used by both classes we should naturally find a higher price paid per ton for coal and a lower price per cord for wood than in a table confined to steam factories alone.

A marked difference exists between the cost of fuel per thousand tile at different factories. The highest average shown on the table for any county is \$7.25, the lowest 52 cents. Much of this variation is due to the great difference in the cost of fuel in different localities, and is accounted for further by the fact that in some instances coal mines and tile factories are operated in conjunction, in which cases the fuel is charged at the mere cost of production;

and at other points slack only is used, which costs very little. The fact also that some makers burn more of the large size tile than others, should enter into the consideration.

TABLE IV.

COUNTIES.	No. of steam facto- ries reported ...	No. of tile made.	No. of tons of coal used	Average cost per ton	Total value of coal	No. of cords of wood used	Average cost per cord	Total value of wood	Total cost of fuel.	Cost of fuel per 1,000 tile
Brown	2	400,000	702	42 50	\$1,905	15	\$2 25	\$34	\$1 99	\$4 86
Bureau	4	1,100,000	1,950	1 95	3,840	75	3 00	225	4,065	3 66
Cass	1	744,000	250	2 00	500	...	...	...	500	67
Champaign	14	4,130,877	7,204	2 35	16,930	520	2 31	1,315	18,245	4 41
Christian	3	240,000	178	2 18	386	400	2 25	900	1,286	5 12
Clark	1	100,000	80	1 60	128	60	1 50	90	218	2 18
Coles	9	2,976,700	1,888	2 24	4,235	1,790	2 13	3,815	8,050	2 70
Cook	1	208,000	260	3 40	894	...	...	...	894	4 25
Crawford	2	408,700	...	...	...	213	1 00	213	213	52
Cumberland	2	385,000	340	2 02	688	300	2 00	600	1,288	3 85
DeKalb	4	2,750,000	3,537	3 57	12,633	90	4 25	383	13,016	4 73
DeWitt	7	1,928,816	1,217	2 44	2,909	1,478	2 70	3,994	6,263	3 23
Douglas	*11	2,391,000	2,078	2 41	5,014	1,128	2 58	3,330	8,344	3 91
DuPage	1	600,000	500	3 05	1,525	...	...	...	1,525	3 04
Edgar	12	1,422,150	964	2 02	1,932	1,434	1 86	2,669	4,621	3 25
Edwarda	2	207,781	120	1 00	120	267	1 60	427	547	2 63
Effingham	1	125,000	15	3 00	45	100	2 40	240	245	1 96
Ford	14	837,509	1,100	2 02	2,225	...	...	...	2,225	3 44
Fulton	7	2,000,000	4,797	1 52	7,303	...	...	...	7,303	3 52
Greene	5	2,163,000	1,330	2 33	3,068	515	2 88	1,486	4,554	2 12
Grundy	1	1,200,000	1,760	2 25	3,937	...	...	...	3,937	3 28
Hancock	3	333,000	500	2 50	1,250	25	3 50	87	1,334	3 99
Henry	7	1,682,358	2,370	2 04	4,834	80	3 00	240	5,074	3 06
Iroquois	8	1,774,080	1,638	2 52	4,148	726	...	2,088	6,237	3 54
Jasper	1	175,000	170	2 25	382	...	...	...	382	2 18
Kane	3	1,694,000	847	3 50	2,925	185	3 50	647	3,472	2 01
Kankakee	1	375,000	423	2 75	1,169	...	...	...	1,169	3 12
Kendall	3	773,530	1,120	2 71	3,030	80	3 87	310	3,340	4 33
Knox	4	640,127	1,200	1 60	2,022	...	...	...	2,022	3 15
LaSalle	13	11,759,000	12,608	1 97	24,820	268	2 43	652	25,472	2 09
Lee	3	263,500	380	3 04	1,156	105	4 34	455	1,612	6 08
Livingston	9	3,108,620	3,754	2 35	8,813	605	2 52	1,525	10,338	3 94
Logan	7	3,528,005	6,990	1 62	11,318	290	2 82	817	12,135	3 37
McLean	13	8,479,000	10,790	2 37	25,515	570	2 95	1,582	27,097	3 20
Macon	14	4,757,018	6,645	1 99	13,223	89	2 47	2,172	15,395	3 24
Macoupin	3	1,078,000	425	1 36	578	415	2 07	1,110	1,688	1 57
Madison	1	35,000	70	2 50	175	...	...	...	175	5 00
Mercer	3	710,500	1,340	2 04	2,820	105	2 75	289	3,109	4 38
Montgomery	1	500,000	1,123	1 82	2,036	...	...	...	2,036	4 07
Morgan	3	1,384,994	3,050	1 99	6,075	350	2 57	900	6,975	5 04
Moultrie	5	1,480,000	1,170	2 67	3,125	770	2 23	1,717	4,842	3 35
Ogle	3	897,054	1,244	3 00	3,857	...	...	...	3,857	4 29
Peoria	2	250,000	200	1 94	400	...	...	...	400	1 92
Platt	4	1,410,000	2,104	2 44	5,150	...	...	...	5,150	3 68
Pike	1	180,000	90	4 50	405	300	3 00	900	1,305	7 25
Putnam	2	313,000	215	3 75	806	300	2 50	750	1,556	4 97
Richland	1	10,000	...	...	...	50	2 00	10	100	5 26
Rock Island	2	3,509,900	3,400	2 26	7,675	...	...	...	7,675	3 18
St. Clair	1	300,000	435	1 25	544	...	...	...	544	1 81
Sangamon	6	2,026,000	4,850	1 55	7,560	715	2 30	1,651	9,211	4 54

* One of these having been in operation only since Dec. 24, 1883, has not been included in the computation.

† One of these made no tile in 1883.

Table IV.—Continued.

COUNTIES.	No. of steam fac- tories reported.	No. of tile made.	No. of tons of coal used.	Average cost per ton.	Total value of coal.	No. of cords of wood used.	Average cost per cord.	Total value of wood.	Total cost of fuel.	Cost of fuel per 1,000 tile.
Schoyler	9	790,000	690	\$1.59	\$1,054	—	—	—	\$1,054	\$1.44
Shelby	2	536,000	135	2.21	303	700	\$2.36	\$1,650	1,953	3.42
Stark	2	1,450,000	1,320	2.12	2,800	100	3.00	300	3,100	3.13
Tazewell	2	2,329,000	1,912	2.34	4,487	1,168	2.51	2,935	7,422	3.19
Vermilion	11	2,173,000	2,918	1.51	4,402	1,143	2.77	3,175	7,577	3.49
Wabash	1	60,000	—	—	—	98	2.80	180	180	3.00
Warren	6	3,145,400	3,800	2.41	7,698	75	3.50	262	7,960	2.27
White	2	263,334	120	1.80	120	317	1.60	506	626	2.38
Will	5	5,556,664	4,149	2.05	8,507	—	—	—	8,507	1.53
Woodford	2	5,303,000	4,709	1.04	4,890	686	2.87	1,971	6,861	1.29
Totals	268	101,392,228	119,406	\$2.10	\$251,349	19,591	\$2.46	\$48,024	\$299,373	\$2.96

TABLE V.

Table V is a compilation of the returns from 184 factories, designed to show which are the sizes principally in use and demand, and the percentage of each sizes made to the whole. The totals are given by sizes and grouped by counties, and the relative quantities of the several sizes are shown by percentages. The results may be summarized as follows, the sizes being arranged in the order of the number manufactured:

Size.	Number.	Percentage of the whole.
4 inch tile	15,849,451	29.313 per cent.
5 " "	13,269,065	24.514 " "
6 " "	8,810,403	16.356 " "
8 " "	6,390,552	11.820 " "
9 " "	3,265,936	6.041 " "
7 " "	2,847,694	5.341 " "
3½ " "	1,755,108	3.246 " "
2½ " "	1,163,266	2.151 " "
10 " "	310,115	.573 " "
2 " "	119,550	.222 " "
9 " "	114,846	.212 " "
12 " "	54,286	.101 " "
11 " "	15,400	.027 " "
14 " "	4,458	.008 " "
13 " "	1,446	.002 " "
Totals	54,069,706	100 per cent.

A the firms reporting did not give specific analysis of their product as to sizes manufactured, but a sufficient number did, from sufficiently separated localities, to illustrate this point very fully.

TABLE V.

Statement of the Relative Sizes of Drain tile Manufactured in Illinois, 1884.

Country.	Number of factories..	Size 2 inch.	Size 2½ inch.	Size 3 inch.	Size 3½ inch.	Size 4 inch.	Size 5 inch.	Size 6 inch.	Size 7 inch.	Size 8 inch.	Size 9 inch.	Size 10 inch	Size 11 inch	Size 12 inch	Size 13 inch	Size 14 inch
Bureau	3	10,000	25,000	320,000	.....	150,000	110,000	60,000	30,000	35,000	10,000	.....	.....	.....	.....	.....
Cass	1	.....	93,000	93,000	93,000	93,000	93,000	93,000	93,000	93,000	.....	.....	.....	.....	.....	.....
Champaign	8	.....	.....	556,950	103,000	813,71	521,748	387,404	277,979	246,601	14,426	51,484	.....	26,942	.....	.....
Christian	2	.....	6,000	21,000	.....	150,000	22,000	17,000	10,000	14,000	.....	.....	.....	.....	.....	.....
Clark	1	.....	.....	14,000	7,000	8,000	6,000	4,800	.....	.....	.....	.....	.....	.....	.....	.....
Clay	1	.....	4,000	5,000	.....	4,000	2,000	1,000	.....	.....	.....	.....	.....	.....	.....	.....
Coles	6	.....	.....	125,628	.....	282,908	207,841	123,845	99,650	333,943	.....	10,000	.....	6,000	.....	.....
Cook	1	.....	56,000	75,000	.....	50,000	14,000	10,000	.....	3,000	.....	.....	.....	.....	.....	.....
Crawford	2	3,400	.....	115,000	.....	99,400	87,800	60,000	.....	.....	16,000	.....	.....	.....	.....	.....
Cumberland	3	.....	.....	125,000	.....	99,000	73,500	65,000	1,000	12,000	.....	.....	.....	.....	.....	.....
DeKalb	3	.....	65,471	510,017	200,000	394,981	230,734	187,444	105,000	90,000	20,000	25,000	.....	.....	.....	.....
DeWitt	6	.....	.....	112,090	30,000	250,884	102,350	104,441	76,411	67,860	.....	.....	.....	.....	.....	.....
Douglas	6	.....	24,950	152,060	.....	184,949	137,941	99,500	49,881	31,020	.....	.....	.....	.....	.....	.....
DuPage	1	30,150	40,700	176,000	24,000	153,000	60,000	71,000	12,995	21,450	.....	10,700	.....	.....	.....	.....
Edgar	13	.....	.....	220,309	33,333	416,788	278,086	265,676	167,769	127,188	.....	.....	.....	.....	.....	.....
Ford	2	.....	15,000	314,916	.....	254,967	108,221	62,653	25,975	16,376	.....	.....	.....	.....	.....	.....
Fulton	6	.....	17,857	339,857	76,857	427,857	200,857	142,557	32,857	60,848	.....	5,000	.....	2,000	.....	.....
Gallatin	1	.....	.....	.....	.....	20,000	20,000	10,000	.....	.....	.....	.....	.....	.....	.....	.....
Greene	4	.....	.....	320,000	.....	555,000	408,000	315,000	210,000	155,000	.....	.....	.....	.....	.....	.....
Grundy	1	.....	68,700	361,160	.....	301,300	118,225	82,226	18,939	23,396	7,300	10,350	.....	.....	.....	.....
Henry	6	.....	13,000	496,409	.....	353,272	124,140	101,759	20,216	20,292	.....	.....	.....	.....	.....	.....
Iroquois	5	.....	.....	167,500	.....	344,700	158,850	169,700	15,500	21,000	33,000	10,000	.....	.....	.....	.....
Kane	1	.....	21,000	151,875	.....	86,147	36,185	45,341	3,048	20,922	.....	8,493	.....	.....	.....	.....
Kendall	1	.....	.....	44,998	.....	20,216	17,403	10,000	1,861	11,923	.....	900	.....	.....	.....	.....
Knox	3	.....	2,600	236,324	.....	200,997	80,097	61,192	9,024	10,893	.....	1,000	.....	.....	.....	.....
LaSalle	2	.....	10,000	250,000	.....	170,000	100,000	70,000	17,000	14,004	.....	.....	.....	.....	.....	.....
Lee	2	.....	.....	54,000	.....	45,000	30,000	20,000	500	4,000	.....	.....	.....	.....	.....	.....
Livingston	7	.....	.....	421,368	33,000	457,094	281,877	228,495	126,164	132,604	.....	1,000	.....	120	.....	.....
Logan	4	.....	.....	99,900	.....	518,348	296,007	198,276	115,267	145,518	.....	.....	.....	.....	.....	.....
McLean	6	.....	.....	164,690	36,867	227,304	117,511	114,372	17,500	18,760	.....	.....	.....	.....	.....	.....
Macon	10	.....	.....	398,079	.....	1,170,155	616,360	511,849	202,568	346,095	.....	20,000	.....	6,000	.....	.....
Macoupin	2	.....	25,186	76,138	.....	103,960	51,310	36,480	15,095	26,805	.....	80	.....	.....	.....	.....

Table V.—Continued.

Country.	Number of factories.	Size 2 inch.	Size 2½ inch.	Size 3 inch.	Size 3½ inch.	Size 4 inch.	Size 5 inch.	Size 6 inch.	Size 7 inch.	Size 8 inch.	Size 9 inch.	Size 10 inch.	Size 11 inch.	Size 12 inch.	Size 13 inch.	Size 14 inch
Madison.....	1	.....	.....	9,000	.....	9,000	8,000	4,000	3,000	2,000	.....	.....	.....	.....	.....	.....
Mercer.....	2	.....	1,000	165,000	.....	210,000	35,000	25,000	.....	6,000	.....	.....	.....	.....	.....	.....
Morgan.....	2	.....	.....	192,583	.....	649,197	220,594	122,655	44,741	43,525	200	1,634	.....	.....	.....	.....
Moultrie.....	3	.....	.....	23,200	60,000	305,600	247,000	147,000	73,000	120,000	.....	.....	.....	.....	.....	.....
Ocala.....	3	.....	2,000	311,429	70,679	271,635	132,955	63,836	33,502	5,012	.....	.....	.....	.....	.....	.....
Peoria.....	1	.....	.....	.....	.....	100,000	50,000	20,000	.....	.....	.....	.....	.....	.....	.....	.....
Platt.....	1	.....	.....	50,000	85,000	85,000	85,000	85,000	85,000	85,000	.....	50,000	.....	.....	.....	.....
Pike.....	1	.....	50,000	50,000	.....	30,000	25,000	25,000	.....	.....	.....	.....	.....	.....	.....	.....
Putnam.....	2	.....	.....	115,000	.....	85,000	60,000	50,000	2,000	1,000	.....	.....	.....	.....	.....	.....
Rock Island.....	2	.....	20,000	1,635,000	.....	1,035,000	420,000	318,000	.....	150,100	.....	50,000	.....	.....	.....	.....
Sangamon.....	3	.....	1,000	131,000	210,000	179,000	112,000	81,000	29,000	50,000	.....	.....	.....	.....	.....	.....
Schuyler.....	3	.....	.....	150,000	.....	310,000	180,000	130,000	25,000	15,000	.....	.....	.....	.....	.....	.....
Shelby.....	3	.....	.....	105,000	.....	200,000	120,000	80,000	25,000	25,000	.....	.....	.....	.....	.....	.....
Stark.....	1	.....	.....	300,000	.....	300,000	200,000	100,000	100,000	100,000	.....	.....	.....	.....	.....	.....
Tazewell.....	6	.....	.....	270,450	195,100	688,880	420,400	273,900	115,000	199,000	.....	6,000	.....	.....	.....	.....
Vermillion.....	13	.....	.....	385,175	165,745	933,637	473,025	346,660	283,710	135,800	.....	6,000	.....	.....	.....	.....
Wabash.....	1	.....	.....	27,000	.....	2,000	2,000	.....	1,000	.....	.....	.....	.....	.....	.....	.....
Warren.....	4	105,000	20,000	1,556,400	10,000	986,200	455,400	436,400	121,050	85,000	.....	.....	.....	.....	.....	.....
White.....	3	.....	342	153,461	51,708	61,234	342,945	9,651	62	.....	.....	.....	.....	.....	.....	.....
Will.....	4	.....	580,460	1,006,094	112,228	607,750	301,100	239,323	106,930	98,338	29,380	47,524	15,000	12,224	1,446	4,458
Woodford.....	5	.....	.....	109,915	157,501	396,600	237,481	113,928	29,000	25,507	.....	.....	.....	.....	.....	.....
Totals.....	183	184,550	1,163,266	13,264,055	1,755,108	15,849,431	8,810,003	6,390,552	2,887,694	3,265,936	114,806	310,115	15,000	54,286	1,446	4,458
Per cent. of each size to the whole.		0.272	2.151	24.534	3.246	29.313	16.356	11.820	5.341	6.041	0.212	0.573	0.027	0.104	.....	.....

TABLE VI.

Table VI presents a view of the growth of tile making in Illinois from 1875 to 1884, and the summaries of its present magnitude. The aggregate capital invested, and the aggregate amount of the manufactured product of 330 factories are given by counties, and the presumptive aggregate capital and product of the State are computed as in previous tables, assuming the whole number of factories to be 526. From 10 counties, in which are located 25 factories in all, no reports were received. In the case of these, the computation has been based on the average for the entire 330 factories whose statistics are known. A supplemental list of these counties, with the number of factories in each, is appended to the table. This table then presents the following general results: The amount of capital invested in 330 establishments is \$2,381,751, and the estimated amount invested in this industry throughout the State is \$3,794,000, an average per county of \$50,587, or per factory of \$7,213. The aggregate product of the 330 factories is 109,836,393 tile, and the computed product for the State 176,962,821 tile, equivalent to 33,516 miles of underground drains. This product, if equally apportioned, would be 1,689,790 tile for each of the counties engaged in this manufacture, and 332,838 for each factory.

COUNTIES.	NUMBER OF FACTORIES IN OPERATION.			Number reported.	Aggr'gate Capital reported.	Aggr'gate Product reported.	Total Capital computed	Total Product computed
	In 1875.	In 1880.	Jan., 1884.					
Brown			3	2	\$7,800	400,000	\$11,700	600,000
Bureau.....	1	3	4	4	33,500	1,100,000	33,500	1,100,000
Cass.....			4	1	6,000	744,000	24,000	2,976,000
Champaign.....	2	2	18	16	115,000	4,531,877	129,375	5,088,361
Christian		1	6	4	15,800	415,000	23,700	622,500
Clark.....		1	2	2	4,900	140,000	4,900	140,000
Clay.....			1	1	1,000	16,000	1,000	16,000
Col's.....		4	16	13	89,000	3,366,829	109,538	4,143,790
Cook.....		1	1	1	5,000	208,000	5,000	208,000
Crawford.....		1	2	2	7,000	408,700	7,000	388,700
Cumberland.....		2	5	4	8,000	547,500	10,000	684,375
DeKalb.....		3	4	4	67,000	2,750,000	67,000	2,750,000
DeWitt.....		4	15	9	50,000	2,163,836	83,333	3,604,727
Douglas.....		3	16	12	47,950	2,508,600	63,934	3,314,800
DuPage.....		1	2	1	12,000	600,000	24,000	1,200,000
Edgar.....	2	2	22	15	50,100	1,649,150	73,480	2,418,753
Edwards.....			2	2	7,000	207,784	7,000	207,784
Effingham.....			1	1	3,000	125,000	3,000	125,000
Ford.....		1	5	4	23,884	837,508	29,855	1,046,885
Fulton.....		6	11	10	73,184	2,587,000	80,502	2,845,700
Gallatin.....		2	3	2	13,200	75,000	19,800	112,500
Greene.....	2	3	8	5	37,750	2,163,000	63,600	3,460,800
Grundy.....		1	3	1	15,000	1,200,000	45,000	3,000,000
Hancock.....		3	6	4	21,000	365,000	31,500	517,000
Henry.....		6	10	8	37,000	1,762,358	46,250	2,202,948
Iroquois.....		3	18	11	50,000	1,997,410	81,818	3,268,489
Jasper.....			1	1	5,000	175,000	5,000	175,000
Kane.....			4	3	45,500	1,694,000	56,875	2,258,607
Kankakee.....		1	4	1	8,000	375,000	32,000	1,500,000
Kendall.....		1	5	3	26,500	773,530	44,168	1,289,212
Knox.....		1	8	5	50,500	890,127	80,800	1,424,200
LaSalle.....		8	27	14	174,583	12,559,000	336,696	24,220,920
Lee.....			5	3	13,000	263,500	21,656	439,160
Livingston.....		5	20	12	64,000	3,671,161	106,667	6,118,600
Logan.....		5	7	7	66,000	3,528,005	66,000	3,528,005

Table VI—Continued.

COUNTIES.	NUMBER OF FAC- TORIES IN OPERATION.			Number re- ported.....	Aggr'gate Capital reported.	Aggr'gate Product reported.	Total Capital computed	Total Product computed
	In 1875.	In 1880.	Jan., 1884.					
McLean.....	.....	9	17	15	\$123,300	8,617,000	\$139,740	9,765,933
Macon.....	1	8	25	16	104,600	4,847,018	163,438	7,604,716
Macoupin.....	.....	2	6	4	29,000	1,094,000	43,500	1,647,000
Madison.....	1	1	3	1	5,000	35,000	15,000	105,000
Marion.....	.....	1	3	1	1,500	20,000	4,500	60,000
Mercer.....	1	3	7	5	18,500	804,500	25,900	1,125,300
Montgomery.....	1	2	2	1	20,000	500,000	40,000	1,000,000
Morgan.....	1	2	4	3	27,500	1,381,994	36,606	1,346,636
Moultrie.....	.....	2	8	5	29,000	1,480,000	46,400	2,364,000
Ogle.....	.....	.....	4	3	45,000	897,054	60,000	1,196,054
Peoria.....	2	4	11	4	8,000	630,000	22,000	1,722,500
Platt.....	.....	1	9	4	26,000	1,410,000	58,500	3,172,500
Pike.....	1	1	3	1	9,000	180,000	27,000	540,000
Putnam.....	.....	2	5	4	11,500	681,000	14,375	851,250
Richland.....	.....	.....	1	1	2,000	19,000	2,000	19,000
Rock Island.....	2	2	4	3	106,500	3,557,900	142,000	743,800
St. Clair.....	.....	1	1	1	10,000	300,000	10,000	300,000
Sangamon.....	1	5	12	6	57,000	2,026,000	114,000	4,052,000
Schuyler.....	1	2	5	3	15,800	730,000	26,333	1,216,667
Scott.....	.....	.....	3	1	2,000	105,000	6,000	315,000
Shelby.....	.....	1	12	5	21,400	711,000	51,360	1,706,400
Stark.....	.....	1	6	2	15,000	2,108,000	45,000	6,324,000
Tazewell.....	1	8	13	10	52,200	3,073,752	67,800	3,995,552
Vermilion.....	.....	6	26	15	64,300	2,918,752	109,720	5,069,170
Wabash.....	.....	1	2	2	5,000	110,000	3,000	110,000
Warren.....	2	3	8	6	73,300	3,205,400	97,733	4,273,867
Wayne.....	.....	.....	1	1	700	25,000	700	25,000
White.....	1	1	3	3	10,800	276,134	10,800	276,134
Will.....	1	2	10	6	153,500	5,540,964	255,833	9,288,233
Woodford.....	.....	6	18	10	79,200	5,707,050	142,560	10,272,050
Other counties.....	24	151	501	330	\$2,381,751	109,836,393	\$3,613,575	168,640,771
	.....	15	25	.....	.....	.....	130,425	8,322,060
Totals.....	24	166	526	330	\$2,381,751	109,836,393	\$3,794,000	176,962,831

TILE FACTORIES IN COUNTIES FROM WHICH NO RETURNS HAVE BEEN RECEIVED

Lake.....	.....	.....	1	.....	.....	.....	.....	.....
Lawrence.....	.....	.....	2	.....	.....	.....	.....	.....
McDonough.....	.....	.....	6	.....	.....	.....	.....	.....
Marshall.....	.....	.....	4	.....	.....	.....	.....	.....
Mason.....	.....	.....	1	.....	.....	.....	.....	.....
Menard.....	.....	.....	5	.....	.....	.....	.....	.....
Randolph.....	.....	.....	2	.....	.....	.....	.....	.....
Stephenson.....	.....	.....	1	.....	.....	.....	.....	.....
Washington.....	.....	.....	2	.....	.....	.....	.....	.....
Whiteside.....	.....	.....	2	.....	.....	.....	.....	.....
			25					
Average per county.....					\$36,642	1,689,790	\$50,587	2,359,504
Average per factory.....					7,217	332,838	8,713	336,431

NOTES FROM CORRESPONDENTS

DESIRING THE

ESTABLISHMENT OF MORE TILE FACTORIES.

As an addendum to the foregoing, space is given to the following remarks of correspondents expressive of the need for tile manufacture in their respective localities:

PRAIRIE HOME, SHELBY COUNTY.

"There are no persons or firms engaged in the manufacture of drain tile nearer than seven or eight miles from here, though this country is greatly in need of tile."

HIRAM JOHNSON.

ROCKFORD, WINNEBAGO COUNTY.

"There is no tile factory in this county, but there is one at Stillman's Valley in the adjoining county. They are making a white and very hard brick at one place in this county, where I think they might make excellent tile."

GEORGE TALLOCK.

SHILOH HILL, RANDOLPH COUNTY.

"Although tile are very much needed in our town, there is no manufactory of the kind here."

R. R. LOONEY.

BURKVILLE, MONROE COUNTY.

"I am thoroughly acquainted with this county, and I can state definitely that there is not a drain tile made in it, although there are plenty used, and a factory would have all it could do to supply the home demand."

J. H. JAENKE.

ALTAMONT, EFFINGHAM COUNTY.

"We have no tile factory in our county, but need one very much. I think it a good opening."

D. F. PIPER.

STERLING, WHITESIDE COUNTY.

"There is no one manufacturing drain tile in this vicinity, but there is good material to be had for that purpose."

J. A. MORGAN.

MANITO, MASON COUNTY.

"There are no drain tile manufactured here, and no one in the business, but this would be a splendid locality for it, as there is a great quantity needed."

J. A. McCOMAS.

FREDERICKSVILLE, SCHUYLER COUNTY.

"There is no drain tile factory in this town, but this is the best location for one in the State. We have a good brick yard and stoneware factory, but no manufacture of tile."

J. F. BELLAMY.

HILLSBOROUGH, MONTGOMERY COUNTY.

"There are no tile factories in this township, and only one that I know of in this county, but there is plenty of good material, and a good demand in this locality."

THOMAS STANDRING.

DONOVAN, IROQUOIS COUNTY.

"We have no manufacture of drain tile in this township, but need one. The farmers are using a great deal of tile brought from other points."

JOHN NELSON.

WAYNE, DUPAGE COUNTY.

"We have no tile factory, but there is a splendid chance here for some one to invest in that business."

WILLIAM ARENS.

MANTENO, KANKAKEE COUNTY.

"We have no drain tile manufactory in our town, but think one would pay here, as it would have a large tract of country to supply, and tile is very much in demand."

JOHN D. BREEN.

BROWNSTOWN, FAYETTE COUNTY.

"There is no tile manufactured in this district, but a good firm could do a thriving business."

T. S. WASHBURN.

VANDALIA, FAYETTE COUNTY.

"There is no drain tile made in this county, though we are very much in need of drainage for our lands."

CHARLES L. DINGES.

PANOLA, WOODFORD COUNTY.

"No tile manufactured in this town or in the country tributary to it."

P. M. EVANS.

DIRECTORY OF DRAIN TILE MAKERS IN ILLINOIS, 1884.

BROWN COUNTY.

Rush, Hersman & Co.....	Mt. Sterling.	R. R. Randall & Co.....	Ripley.
Brown Co. Drain Tile Works	Mt. Sterling.		

BUREAU COUNTY.

Horatio Churchill.....	Buda.	Wagner Bros.....	Princeton.
Louis Oberschelp.....	New Bedford.	A. W. Walton.....	Princeton.
Joseph Lyford.....	Neponset.		

CASS COUNTY.

Campbell & Chapman.....	Cass Siding.	Thomas Finney.....	Virginia.
Thomas Dyson.....	Chandlerville.	Philemon Stout.....	Virginia.

CHAMPAIGN COUNTY.

Beecher & Pratt.....	Savoy.	Tolono Tile Manufactory...	Tolono.
A. M. Scott.....	Champaign.	Laughlin & O'Bryan.....	Parkville.
Champaign Tile Co.....	Champaign.	Burton Brothers.....	Philo.
W. A. Jones.....	Sidney.	Cook & Beacham.....	Gifford.
Mortimer Smith.....	Homer.	B. J. Gifford.....	Rantoul.
Bayless & McKenney.....	Lost Grove.	Connor & Patton.....	Rantoul.
James C. Dunning.....	Mahomet.	John Voss.....	Thomasboro.
Warner, Morehouse & Co....	Mahomet.	Sulton & Sheldon.....	Urbana.
George A. Fisher.....	Fisher.	Tomlinson Tile Factory...	Tomlinson.
Seymour Tile Co.....	Seymour.		

CHRISTIAN COUNTY.

Scribner, Tobey & Co.....	Assumption.	Philip Fleigle.....	Morrisonville.
Flat Branch Tile Works.....	Assumption.	W. C. Sharp & Co.....	Mt. Auburn.
Segress & Ogelvie.....	Edinburg.	Jesse W. Johnson.....	Pana.

CLARK COUNTY.

Brown & Rhoades.....	Casey.	James E. McCabe.....	Orange.
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CLAY COUNTY.

Abraham Chidester.....	Flora.	
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COLES COUNTY.

J. B. Carter	Ashmore.	R. H. Olson	Lerna.
Crum & Webb	Cook's Mills.	B. S. Briles	Finna.
S. H. Record & Co.	Charleston.	Theodore Jante.....	Mattoon.
Beals & Beals	Trilla.	Beals & Beals.....	Mattoon.
Baker & Reynolds	Hulton.	Mattoon Tile Co.....	Mattoon.
William McCandlish.....	Jonestown.	G. V. Miller.....	Mattoon.
Osborne & Goodell	Lerna.	Green Brothers.....	Oakland.
U. S. McDonald	Lerna.		

COOK COUNTY.

A. O. Bradway.....	Oak Glen.	
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CRAWFORD COUNTY.

D. F. Johnson.....	Robinson.	Thomas Carrell.....	Trimble.
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CUMBERLAND COUNTY.

Phillip & Dow.....	Neoga.	Shady Dell Brick and Tile Works.....	Table Grove.
L. B. Dunesing.....	Toledo.		
Charles Mitchell.....	Toledo.		

DE KALB COUNTY.

P. H. Nichols.....	Hinckley.	Dietrich & Ebinger.....	Sandwich.
John T. Kerr.....	Hinckley.	W. N. Fairbro.....	Sycamore.

DE WITT COUNTY.

F. C. Davidson.....	Clinton.	Lane Tile Works	Lane.
Charles Richter.....	DeWitt.	Geo. W. Thomas & Co.....	Maymour.
Jesse S. Davis.....	DeWitt.	Carle & Downing.....	Wapella.
John Walters	DeWitt.	Dick & Chatham.....	Waynesville.
J. Major & Son.....	Farmer City.	Eber Davenport.....	Waynesville.
Joseph Neal	Farmer City.	J. J. Seborg & Co.....	Weldon.
Bennett & Cross.....	Hallville.	Andrew Paulson.....	Weldon.
Lunday & Wallace.....	Kenney.		

DOUGLAS COUNTY.

Hartford & Bowman.....	Arcola.	R. C. Patterson.....	Camargo.
Ervin & Snyder	Arcola.	F. W. Hammett.....	Camargo.
Eisele & Jacquart.....	Arcola.	Atlee, Robbins & Parish...	Hindsboro.
J. H. Kelly & Sons.....	Atwood.	Paul & Field.....	Newman.
Hawkes & Gross.....	Atwood.	Rutherford & Timmons ..	Newman.
Mr. Snipes.....	Atwood.	Hall & Jackson.....	Tuscola.
Louis Grant.....	Bagdad.	Martin Brothers.....	Arthur.

DU PAGE COUNTY.

Wm. Hammerschmidt & Co.	Lombard.	Martin & Van Ovan.....	Naperville.
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EDGAR COUNTY.

Prosps & Son.....	Edgar.	J. W. & M. C. Register	Paris.
Tucker Brothers	Horace.	J. Jackner	Paris.
Wilkerson & Miller.....	Horace.	A. O. Shank	Paris.
Horace C. Johnston.....	Horace.	James Flickner.....	Paris.
F. J. Mattox	Scotland.	Wm. Culbertson & Son.....	Mays Station.
Buckley & Johnson.....	Paris.	John Mays.....	Mays Station.
Marion Link	Paris.	H. Wat-on.....	Grandview.
J. W. Rawlings & Co.....	Grandview.	Hamil & Clement.....	Brockton.
Morton & Morton.....	Nevins.	R. C. Patterson.....	Metcalf.
J. & O. Laufman.....	Oliver.	Thomas Paxton	Kansas.
Vermillon Tile Co.....	Vermillon.	John Paxton.....	Kansas.
James Casteel.....	Redmon.	Marcellis Keys.....	Baldwinsville.

EDWARDS COUNTY.

Boven & Beloit.....	Browns.	Wheatcroft & Co	Grayville.
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EFFINGHAM COUNTY.

M. Dieterich	Dieterich.		
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FORD COUNTY.

Peter Wagoner & Co.....	Caberry.	Andrew Jordan.....	Gibson City.
Ames & Wright.....	Caberry.	Paxton Brick and Tile Co..	Paxton.
Roberts Brick and Tile Works.....	Roberts.	Swan Lunburg.....	Paxton.
Eggleston & Spaulding.....	Gibson City.	H. W. Johnson.....	Paxton.

FULTON COUNTY.

T. J. Routh.....	London Mills.	John O. Beer.....	Fairview.
Van Winkle & Tompkins ..	Avon.	John Kane	Ipava.
Randolph Fire Clay Works..	Avon.	Morse & Davis.....	Rapatee.
Cuba Brick and Tile Works.	Cuba.	P. P. Murray	Table Grove.
A. Keeling & Son	Farmington.	W. W. Ellis & Son.....	Canton.
A. A. Spinney.....	Farmington.	Nathaniel Stubbs.....	Canton.
Timothy Morse.....	Fairview.	D. W. Hettrick.....	Astoria.

GALLATIN COUNTY.

Smith & Summers.....	Ridgeway.	Wm. McIntyre.....	Equality.
Johnson & Co	Omaha.		

GREENE COUNTY.

Fire Clay Works	White Hall.	J. S. Bushnell	Carrollton.
Culbertson, Smith & Co.....	White Hall.	John King	White Hall.
Purdy & Co	White Hall.	W. T. Lowry.....	Roodhouse.
Gri-wold & Stave	Greenfield.	Green Mattie.....	Rockbridge.
Green Maddy, Sr., & G. W. Maddy, Jr.....	Rockbridge.		

GRUNDY COUNTY.

Greigs. Martin & Co	Morris.	Martin & Cochran.....	Mazon.
H. Burrell & Co.....	Morris.		

HANCOCK COUNTY.

Garland & Doyle.....	Augusta.	F. D. Lyon & Co.....	Hamilton.
William Highland.....	Augusta.	Ransom Ingraham.....	La Harpe.
B. H. Routh & Co	Augusta.	Plymouth Brick and Tile Co	Plymouth.
The Bowensburg Brick Tile Co	Bowensburg.		

HENRY COUNTY.

H. A. Washburn.....	Galva.	Isaac Cook.....	Kewanee.
J. B. McHose	Orion.	Geneseo Tile Works	Geneseo.
Mowbry & Lawes.....	Atkinson.	F. A. Cook.....	Cambridge.
Rankin & Miner.....	Kewanee.	Andrew Westerlund.....	Lynn.
Fred. Gunther.....	Kewanee.		

IROQUOIS COUNTY.

A. M. & C. W. Bishop	Ash Grove.	Christopher Anderson.....	Roberts.
S. B. Gray	Goodwin.	Thawville Tile and Brick Co	Thawville.
Hamer & Bonfield.....	Iroquois.	Slocum & Lutz	Loda.
James Wilde & Son.....	Gilman.	John Fernald.....	Wellington.
H. Barnes & Co	Onarga.	J. C. Anderson.....	Woodland.
F. N. Beach.....	Onarga.	W. H. Mogg	Milford.
Sheldon Tile Works.....	Sheldon.	Jasper Prutsman.....	Milford.
Pressed Brick and Tile Co..	Caberry.	Z. Hockett.....	Watseka.

JACKSON COUNTY.

C. Kilpatrick	Anna.		
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JASPER COUNTY.

C. A. Nebeker.....	Newton.	D. B. Brown & Co	Newton.
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KANE COUNTY.

Chris. Solfishburg.....	Aurora.	Stephenson & Stryker.....	Hampshire.
Benson & Gillett.....	Aurora.	D. H. Halger.....	Dundee.
Sharp & Wilson.....	Blackberry.		

KANKAKEE COUNTY.

Hiram Groover	Waldron.	D. C. Taylor.....	Kankakee City.
Richardson & Curtis	Grant Park.	Deebank & Clayton	Kankakee City.

KENDALL COUNTY.

William Wright & Co.....	Millbrook	McGlenn & Doran	Plano.
Joseph Tarbox.....	Yorkville.	Millington Tile Co.....	Millington.
James Bell	Minooka.		

KNOX COUNTY.

W. H. Beason	Yates City	F. A. Patton.....	Galesburg.
William Jones.....	Knoxville.	F. P. Totts	Abingdon.
Galesburg Pressed Brick & Tile Co.....	Galesburg.	Charles Prister & Co.....	Wataga.
Henry Miles.....	Galesburg.	J. W. Temple	Victoria.
		S. W. Brown.	Avon.

LAKE COUNTY.

Cloes & Fowler	Lake Bluff.		
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LA SALLE COUNTY.

Holly & Co.....	Peru.	Streator Tile Co.....	Streator.
Robert Unzicker.....	Peru.	Parker Tile Works.....	Streator.
John Sweeley	Seneca.	Hardscrabble Brick & Tile Co	Streator.
John Crotty	Seneca.	A. E. & E. D. Howland.....	Farm Ridge.
William Munson	Fredonia.	Green Brothers	Dayton.
J. A. Gonger.....	Earlville.	George Stare.....	Mendota.
A. T. Griffen.....	Utica.	E. D. Terrv.....	Millington.
James Reynolds & Co.....	Utica.	Long Brothers	Marseilles.
Richey & Holland.....	Lowell.	Jonas Lehman	Marseilles.
Clark & Wiswall	Lowell.	Ambrose Trumbo.....	Ottawa.
Mears & Brothers.....	Vermillionville..	Hess & Williams.....	Ottawa.
Charles Wiswall	Vermillionville..	Ottawa Fire Clay & Brick Co	Ottawa.
McShane Brothers.....	Lostant.	Smith, Demey & Gileb	Triumph.
Philo Barber & Sons.....	Lostant.	Jacob Hagl	Ransom.
Twin City Brick & Tile Co...	LaSalle.		
LaSalle Drain Tile & Brick Co	LaSalle.		

LAWRENCE COUNTY.

Cox & Schmallhausen.....	Bridgeport.		
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LEE COUNTY.

John Whitneck of Clinton, Ill.....	Amboy.	John Lamon & Co.....	Franklin Grove
Crotty, Doane & Fish.....	Franklin Grove	Dixon Brick & Tile Co.....	Dixon.
		North Dixon Brick & Tile Co	North Dixon.

LIVINGSTON COUNTY.

H. C. Brunner.....	Pontiac.	L. Powers.....	Weston.
Adams & Custer	Pontiac.	J. B. Robinson & Co.....	Flanagan.
H. J. Straight.....	Fairbury.	William Armitage.....	Odell.
J. W. McDowell	Fairbury.	McKee & Gallup.....	Dwight.
Widdefield Brothers.....	Fairbury.	Henry Leidertop.....	Budd.
Barnes & King	Fairbury.	Pratt Brothers.....	Cropsey.
J. M. Travis	Fairbury.	W. S. Marshall & Co.....	Forest.
Francis Brothers	Fairbury.	Forest Centennial Brick and	Forest.
D. H. Snyder & Son.....	Cornell.	Tile Factory.....	Long Point.
Shaw & Myers.....	Cornell.	A. H. States.....	Adams.
Saunemin Tile Works	Saunemin.	Ambury Tile Factory.....	

LOGAN COUNTY.

W. S. Snyder & Sons	Latham.	Samuel Baker & Co.....	Chestnut.
Lincoln Coal Mining Co.....	Lincoln.	Lundy & Wallace	Kenney.
J. H. Donson.	Atlanta.	D. Van Hise.....	Mt. Pulaski.
R. Brant	Atlanta.		

M'LEAN COUNTY.

Pike & Castle	Chenoa.	Kelley & Zenor.....	LeRoy.
Joseph Dorland.....	Randolph.	George Haman	LeRoy.
R. Wirt & Co	Saybrook.	Funk's Grove Tile Factory.	Funk's Grove.
O. M. Rowe & Co.....	Saybrook.	Stoops & Pochel.....	Colfax.
Oliver Tilbury.....	Towanda.	P. Buckles	Delano.
A. W. Skinner.....	Hudson.	Vasey & Fuller.....	Belleflower.
S. W. Baker	Danvers.	R. & B. F. Fencetermaker..	Ellsworth.
Bertell- & Stoll	Lexington.	Finch Brothers.....	Padua.
N. B. Heufer & Co	Bloomington...	Power & Dillon.....	Weston.
Cook & Pratt Brothers.....	Cropsey.		

MACON COUNTY.

Christopher Brothers & Danir	Macon.	Benjamin McGuire.....	Harristown.
Martin & Gillen	Wheatland.	Black Brothers & Co.....	Warrensburg.
L. C. Farnum & Co.....	Niantic.	George Kepler & Son.....	Warrensburg.
Connagham Brothers.....	Niantic.	J. E. Davis	Mount Zion.
William Traver.....	Decatur.	D. W. Garver.....	Mount Zion.
Decatur Tile Co.....	Decatur.	Riser Brothers.....	Argenta.
Wm H. Martin.....	Decatur.	Queney & Myers	Argenta.
Riser Brothers	Decatur.	S. W. Jones	Oreana.
H. C. Johns & Son.....	Decatur.	R. F. Morrison	Oreana.
Conrad Ammann.....	Decatur.	C. E. Bosworth & Sons.....	Blue Mound.
Roach, Cann & Co	Decatur.	E. E. Lemon.....	Blue Mound.
John Robinson.....	Cerro Gordo.	W. H. Long	Maroa.
Brown & Starr	Cerro Gordo.	W. H. Stoutenborough.....	Maroa.
Hill & Coleman.....	Boody.	George Coopers	Maroa.

MARSHALL COUNTY.

Joseph Skinner	Wenona.	T. J. Brasfield	Henry.
J. W. McLanahan.....	Sparland.	Kennedy & Clemens.....	Varna.

MACOUPIN COUNTY.

John W. Utt	Virden.	Liston & Harris	Carlinville.
Girard Coal & Tile Co	Girard.	Robert Tucker.....	Palmyra.
J. W. Maxfield & Co.....	Barr's Store.	J. W. Whitlock.....	Scottville.

MADISON COUNTY.

M. H. Boals & Co.....	Alton.	Mr. Gottschalk	Alton Junction.
Highland Tile Works.....	Highland.		

MARION COUNTY.

Cook, Barnet & Woodward..	Odin.	T. M. Woods & Bro.....	Central City.
M. Hockdoefer	Center City.		

MERCER COUNTY.

Townsley & Braucht	Joy.	James Stephenson.....	New Boston.
Griffen Brothers	Griffen.	Andrew Westerland	Swedonia.
B. F. Townsley	Aledo.	F. A. Griffen & Bro.....	New Windsor.
Griffen Brothers	Cable.		

MENARD COUNTY.

Sanford Brothers	Tallula.	C. Clark	Athens.
Snell & Rowe.....	Tice Station.		

MONTGOMERY COUNTY.

Litchfield Tile Co.....	South Litchfi'd	C. C. Sullens	Litchfield.
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MORGAN COUNTY.

Henry M. Whitire.....	Jacksonville.	William P. Craig	Woodson.
William Taylor & Co.....	Waverly.	C. S. & A. L. French.....	Chapin.

MOULTRIE COUNTY.

James A. Gregory	Lovington.	Wilkinson Brothers	Bethany.
C. L. Roane	Sullivan.	John Cook	Bethany.
M. L. Lowe	Sullivan.	Edminston Brothers.....	Dalton City.
John R. Martin	Nelson.		

M'DONOUGH COUNTY.

Bradbury, Shoup & Leard ..	Prairie City.	Bushnell Fire Clay & Tile Factory	Bushnell.
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OGLE COUNTY.

Stilman Valley Tile & Brick Factory	Stillman Valley Polo.	William Stocker	Rochelle.
George French		Rochelle Union Co.....	Rochelle.
		E. Hille & Co.....	Rochelle.

PEORIA COUNTY.

W. L. Miller & Sons.....	Monica.	William Hodson	Brimfield.
Mr. Knees	Monica.	J. Hart	Brimfield.
Monica Factory.....	Monica.	Ephriam Tucker	French Grove.
Loth Murst	Bartonville.	John S. Tucker	French Grove.
R. J. McCullough	Hanna.	William Connelly	Richmond.
O. H. Heliney	Brimfield.		

PIATT COUNTY.

Olemens Brothers	Mansfield.	Klatz & Ammann.....	Monticello.
Ainsworth & Hyatt	Cisco.	Gaunts & Bowsher.....	DeLand.
H. L. Adams.....	Monticello.	Williamson Brothers	Lodge.
J. A. Bender & Co.....	Monticello.	Elcock & Co.	Bement.

PIKE COUNTY.

William Kaspohle.....	Pittsfield.	Fred. Hudson.....	Milton.
J. C. Chilton	Barry.		

PUTNAM COUNTY.

Mills Brothers	Clear Creek.	Harkness, Hayslip & Co....	Granville.
W. B. Mills & Brothers.....	Mt. Palatine.	Robert Hinds.....	Putnam.

RANDOLPH COUNTY.

Finney & Johnson	Chester.		
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RICHLAND COUNTY.

Olem Brothers	Olney.		
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ROCK ISLAND COUNTY.

H. & C. F. Fullerton.....	Hampton.	Theodore Simmons	Andalusia.
Argillo Works.....	Carbon Cliff.	H. C. Wyle	Andalusia.

ST. CLAIR COUNTY.

Gooding & Stookey.....	Belleville.		
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SANGAMON COUNTY.

D. W. Stookey.....	Buffalo.	George Gillen.....	Cantrall.
Berment & Barbre.....	Mechanicab'rg.	Baldrige Brothers.....	Illioopolis.
H. Dawson & Son.....	Springfield.	Majonnier & Ulrich.....	Lanesville.
J. E. DeShara & Co.....	Springfield.		(Spr'gfl'd' p.o.)
Speed Butler.....	Springfield.	Elijah Farnham.....	Buffalo Hart.
R. E. Morse.....	Auburn.	Joseph Barth.....	Salisbury.
The Auburn Coal and Tile Co.....	Auburn.		

SCHUYLER COUNTY.

John McCabe & Son.....	Rushville.	Rufus Porter.....	Ray.
Pemberton Brothers.....	Ray.	C. M. Erwin.....	Littleton.
Proctor & Co.....	Ray.	Ernig & Co.....	Sheldon's Gr.

SCOTT COUNTY.

Newton J. Smith & Bro.....	Alsey.	Coons Brothers & Co.....	Winchester.
Manchester Drain Tile Co..	Manchester.		

SHELBY COUNTY.

Moses Flanders.....	Shelbyville.	S. E. Spraker.....	Windsor.
David Truitt.....	Shelbyville.	Brown & Shade.....	Windsor.
Graybill & Stuart.....	Shelbyville.	J. N. Corrington & Co.....	Moawequa.
Aaron Small.....	Shelbyville.	Moawequa Tile Co.....	Moawequa.
John Stewart.....	Shelbyville.	Flat Branch Tile Co.....	Moawequa.
J. N. Steward.....	Shelbyville.	P. Christopher & Co.....	Prairie Bend.

STARK COUNTY.

Samuel White.....	LaFayette.	R. G. McCullough.....	Wyoming.
Wyoming Brick and Tile Co.	Wyoming.	W. H. Gray.....	Wyoming.

TAZEWELL COUNTY.

Smith & Co.....	Hope.	Hobart & Franklin.....	Delavan.
C. C. Young.....	Elm Grove.	Williams & Tuttle.....	Fulamore.
Johnson & Bolander.....	Pekin.	W. A. Gloifelter.....	Menier.
H. W. Smith.....	Pekin.	Wm. Brennerman & Co.....	Hopedale.
Snvder & Jansen.....	Pekin.	E. L. Hay.....	Silly.
Rapp Brothers.....	Morton.	John Mickins.....	Silly.
George W. Detler.....	Morton.	G. Stafford.....	Armington.
Smitzer & Bayles.....	Washington.	P. L. Buckles.....	Delana.

UNION COUNTY.

C. Kilpatrick.....	Anna.		
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VERMILION COUNTY.

Thomas Armstrong.....	Rossville.	Mr. Armstrong.....	Penfield.
Ford & Conkrite.....	Rossville.	G. W. Cunningham & Bro...	Bismark.
William Thomas.....	Rossville.	Woods & Songer.....	Tilton.
W. S. Graves & Brother....	East Lynn.	Lewis Williams.....	Alvan.
Bennett & Moore.....	Hoopeston.	W. H. Adams.....	Indianola.
David Smith.....	Ridge Farm.	Gray Brothers.....	Sidell Grove.
Fetters & Lawrence.....	Ridge Farm.	Canaday & Vanneman....	Archle.
Mendenhall Brothers.....	Ridge Farm.	W. J. Mann.....	Fairmount.
John Dukes & Son.....	Westville.	J. M. McCabe.....	Fairmount.
Reuben Young.....	Potomac.	Ira Babb.....	Long.
J. Goonine.....	Higginsville.	Conrad Frederick.....	Muncy.
J. T. Amos.....	Danville.	J. L. Marsh.....	Vermilion.
Woods & Songer.....	Danville.	David Smith & Sons.....	Vermilion Gr'ce.
James Butts.....	Hope.	John G. Canaday.....	Georgetown.

WABASH COUNTY.

W. L. Tilton	Mt. Carmel.	W. P. Beeseley.....	Linn.
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WARREN COUNTY.

Monmouth Sewer Pipe & Drain Tile Man'g Co.....	Monmouth.	Daniel Bird.....	Roseville.
Monmouth Manufacturing & Mining Co.....	Monmouth.	Balding & Edwards.....	Ellison.
		Townley	Alexis.
		Henry C. Mills.....	Henderson Gr.

WASHINGTON COUNTY.

Henry Kliebecker.....	Nashville.		
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WAYNE COUNTY.

John Curry.....	Fairfield.		
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WHITE COUNTY.

Arthur Meade & Co.....	Carmel.	Welch & Sons.....	Enfield.
Rudolph & Williams.....	Crossville.	W. J. Wheatcroft.....	Grayville.

WILL COUNTY.

Ernest Renne	Crete.	Elwood Tile Co.....	Elwood.
M. D. Kenney.....	Wilmington.	R. Bellfield	Nauvauy.
Northwestern Tile Co.....	Joliet.	Manhattan Tile Co.....	Manhattan.
Joliet Mound Co.....	Joliet.	Plainfield Tile Co	Plainfield.
Joliet Tile & Brick Co.....	Joliet.	Conkling & Co.....	Braidwood.
Bannon Brothers	Joliet.		

WOODFORD COUNTY.

Geddeman, Murray & Co....	Eureka.	P. A. Moore.....	Roanoke.
Frank Darst	Eureka.	Peter Kennell	Roanoke.
F. A. Cook	Secor.	Andrew Wilts	Metamora.
A. C. Cook	Secor.	Herron & Leonard.....	Metamora.
Stephenson & Eveland.....	Low Point.	Robert McCulloch.....	Washburn.
Benjamin Stinpert.....	Low Point.	Edward Stevens.....	Washburn.
John McWhinney.....	Low Point.	E. S. Fursman.....	El Paso.
M. T. Ames.....	Minonk.	E. Stephens....	Linn.

INDUSTRIAL, SOCIAL AND ECONOMIC CONDITIONS AT PULLMAN, ILLINOIS.

At the annual convention of the chiefs and commissioners of the various bureaus of statistics of labor in the United States, held at St. Louis in June, 1884, it was determined to make a full and exhaustive investigation of the economic experiment conducted by Pullman's Palace Car Co. on the plan projected by Mr. George M. Pullman, the president.

In carrying out this determination the convention met at Pullman, Ill., in September following, and for three days studied all the economic, sanitary, industrial, moral, and social conditions of the city.

Every facility was afforded for the closest scrutiny of every feature and phase of any and all the affairs the members of the convention saw fit to examine. The results of their investigations are embodied in this report, which is presented as a joint report through the various annual reports of the bureaus represented.

We have availed ourselves of material furnished the press by Duane Doty, Esq., a gentleman connected with the educational work of Pullman, and by other writers, but chiefly our report is the result of our own observations of things and conditions as we found them.

Our object in making the investigation was to give to the manufacturers and capitalists of our respective States official information relative to one of the most attractive experiments of the age seeking to harmonize the interests of labor and capital. It is no part of our duty to eulogize individuals; we have endeavored to learn results.

The enterprise of Herr Krupp at Essen; the philanthropy of M. Godin in the establishment of the Familistère at Guise, France; the humanity of Sir Titus Salt, that brought into existence the industrial town of Saltaire, in Yorkshire, England; and the broad Christian inspiration which resulted in the founding of Pullman have given the world, in the four greatest manufacturing countries, four magnificent schemes for the uplifting of a large portion of the people seeking a living through wages.

In all the countries named there have been many other experiments worth a careful study of all interested in social advancement. This is thoroughly true of our own country, and we might call attention with justice to the success at Peace Dale, R. I., at St. Johnsbury, Vt., at Willimantic, and Manchester, Conn., and at other points. But, for comprehensive plan, for careful recognition of all

the strong points, and the fullest anticipations of all weak features, for the beauty of the executed plan, for the financial and social success thereof, Pullman city as the outgrowth of the newest of the great manufacturing nations stands at the head.

HISTORY.

The commissioners had no opportunity to consult Mr. Pullman personally, he being away at the time of our investigation, and we have, therefore, taken such statements of fact, as appear in our report, from documents already before the public.

Pullman's Palace Car Co. was founded in 1867, with a capital of \$1,000,000; its extended operations have been conducted on the strictest business principles, and have, from time to time, necessitated increases in its capital stock, until now its capital represents nearly \$16,000,000, and \$2,000,000 in debenture bonds; its palace cars are operated on upwards of 70,000 miles of railway in America and Europe. Its capital stock has been paid in dollar for dollar, and no watering processes have ever entered into the financial operations of the company. Its dividends have been regular and ample, and its affairs conducted on the same scientific basis that has characterized the construction of the works.

Four or five years ago Mr. Pullman determined to bring the greater portion of the works of the company into one locality. To accomplish this he must leave the great cities for many reasons, and yet it was essential that a site should be selected where communication could be had with the whole country, and near some metropolitan place like Chicago. He wished above all things to remove his workmen from the close quarters of a great city, and give them the healthful benefits of good air, good drainage, and good water, and where they would be free, so far as it would lie in the power of management to keep them free, from the many seductive influences of a great town.

He was fortunate in securing about 4,000 acres of land on the Illinois Central Road, a dozen miles to the south of Chicago. This land was located in the town of Hyde Park, and here he built his city.

THE SITE.

The city is situated upon the west shore of Lake Calumet, which is a shallow body of water three and a half miles long by a mile and a half in width. This lake drains into Lake Michigan through the Calumet river, Lake Michigan being not more than three miles distant. The site of that portion of the city now fully covered with buildings is from eight to fourteen feet above the level of Lake Calumet. The soil is a drift deposit of tough blue clay ninety feet in depth, resting upon lime rock. The land gradually rises to the north and west to an elevation of twenty-five feet above Lake Calumet, this lake being usually from three to five inches higher than Lake Michigan. There is no land of a marshy character in this neighborhood. The bottom of Lake Calumet is of hard blue clay

from which the best cream-colored brick are made. It was deemed unwise to permit any sewage to flow into Lake Calumet, so the system of drainage adopted is what is known as the *separate* one.

On the 25th day of May, 1880, ground was first broken for the building of the Palace Car Works, and the city of Pullman. The land was an open and not over-promising prairie.

The first efforts were directed towards the scientific drainage of the future town. In old cities drainage follows construction, for the average village or city is but the haphazard conglomeration of odds and ends in the way of buildings, whose inartistic forms, defective construction, and inconvenient arrangements are supplemented by such drainage and sewerage systems as can be utilized. It is rare of course in the nature of things that drainage is thought of at the outset. It comes after a lapse of time when the soil has become charged with the accumulated filth of years, and all attempts at sewerage are more or less unsatisfactory.

The city of Pullman, on the other hand, has been built scientifically in every part, and is exceptional in respect to drainage and sewerage if in no other regard. For here the drainage preceded the population, and the soil is now as free from organic contamination as when it formed a portion of the open prairie. Every house has been constructed from approved plans, and under the supervision of competent builders and engineers.

The perfection of the site selected was accomplished through surface drainage, and the construction of deep sewers.

These should be described as a matter of logical order before anything is said of the buildings of the town.

SURFACE DRAINAGE.

The atmospheric water goes from roofs and streets through one system of pipes and sewers directly into Lake Calumet. Brick mains from three to six feet in diameter are built in alternate streets running east and west, the intermediate streets being summits from which the surface water flows into the main sewers. The fall is sufficient to secure good cellars for all the dwellings in the city, the drain pipes leading from cellars being at least eighteen inches below the cellar bottoms. A two-foot cobble-stone gutter borders either side of every street, leading at short intervals of 150 feet into catch-basins, these basins connecting either with the lateral or the main sewers. This system of surface drainage is calculated to carry easily an amount of water that would cover to the depth of one and one-half inches the entire area drained. For the drainage from lots six inch pipe is used, while for block drainage and for laterals pipe varying from nine to eighteen inches in diameter is used. The parks and play grounds are all thoroughly drained. The amount of vitrified pipe already laid in the town is as follows:—

Of 18 inch pipe.....	4,500 feet
Of 15 inch pipe.....	6,500 feet
Of 12 inch pipe.....	6,600 feet
Of 9 inch pipe.....	16,000 feet

There are also several miles of six inch pipe. In addition to the piping of diameters from six to eighteen inches, the necessary quantity of four inch tile has been used to carry water from cellars and down-spouts to the laterals from brick houses for 1,476 families. The lands surrounding the town are well drained by ditches.

DEEP SEWERS.

In every other street running east and west, and lying between the streets having brick mains for surface drainage, there are sewers made with vitrified pipe which lead to a large reservoir under the water tower, entering it at sixteen feet below the surface of the ground. These glazed pipe sewers are from six to eighteen inches in diameter and constitute another and separate system of drains which carries the sewage proper, by gravity, from houses to the reservoir. This reservoir has a capacity of 300,000 gallons, and the sewage is pumped from it as fast as received and before sufficient time elapses for fermentation to take place. The ventilation of this reservoir is perfect. Flues run from it to the top of the tower above it, and a flue leads from it to the large chimney which takes off the smoke from the fires under the boilers of the Corliss engine. The sewage is sent to the model farm through a twenty inch iron main, and, at the farm end of this pipe, it goes into a receiving tank, which contains a screen placed in a vertical position through which substances that are more than half an inch in diameter can not pass. The pressure of the sewage upon the tile piping in the farm seldom, if ever, exceeds ten pounds to the square inch, provision being made at the pumping station and at the farm to relieve the pipes from greater pressure. About 100 gallons of sewage are now pumped daily for each person of the population. This seems a large amount, but when it is remembered that every tenement is provided with the best of closets and sinks, and that the water taps are all inside the houses, it will be seen that a large amount of sewage per capita is unavoidable.

THE MODEL FARM.

About 140 acres of land have been thoroughly underdrained and piped for the reception of sewage with which these acres are irrigated by means of hose. Hydrants are placed at proper intervals so that the distribution can be easily effected. There is nothing offensive about this work, nor can one detect noxious odors at the pumping station or at the farm. All organic matter in the sewage is at once taken up by the soil and the growing vegetation, and the water, making from 100 to 500 parts of the sewage, runs off through the under-drains to ditches, which carry the filtered waters into Lake Calumet. Where the sewage water leaves the drains it is as clear and sparkling as spring water, and laborers often drink it. One acre of land will take care of the sewage made by 100 persons. The population is now only 8,500, but there is land enough already prepared to receive the sewage made by a population of 15,000. The pumps now at the pumping station can handle 5,000,000 gallons a day if necessary, and the main to the farm could carry the sewage

for a population of 50,000. These pumps are now required to handle about a million gallons a day, coming from shops, homes, and public buildings. All waste products at Pullman are carefully utilized, being transformed by vital chemistry into luxuriant vegetable forms.

This farm is now a source of profit, and its products are sold in the markets of the country from Boston to New Orleans.

THE BUILDINGS.

With the scientific drainage and sewage system, in the construction of which nearly one million dollars (\$1,000,000) were expended underneath the ground before anything appeared on its surface, came the erection of the works and the dwellings of the town. It is sufficient to say that the same care exercised in guarding the future health of the place has been bestowed in the erection of works and dwellings.

In the centre stands the water tower which takes a supply of water from Lake Michigan and distributes it through the town. Underneath this immense tower is the reservoir into which flows the sub-sewage of the place as described. Around the tower are located the principal works; to the south and north of the works, chiefly to the south, are the dwellings.

The appearance from the railroad as one approaches from Chicago is effective. The neat station; the water tower and the works in front; the park and artificial lakes intervening; to the right a picturesque hotel backed by pretty dwellings; the arcade containing stores, library, theatre, offices, etc.; still further to the right, and beyond, a church which fits into the landscape with artistic effect.

The laying out of the whole town has been under the guidance of skilled architects aided by civil engineers and landscape gardeners.

The dwellings present a great variety of architecture, yet give harmonious effects. They are not built like the tenement houses of ordinary manufacturing towns where sameness kills beauty and makes the surroundings tame, but a successful effort has been made to give diversity to architectural design.

The streets are wide, well built, and wherever possible parked. The lawns are kept in order by the company; the shade trees are cared for, and all the police work is done under competent supervision.

Every care has been taken to secure convenience inside as well as outside the dwellings. The cheapest tenement is supplied with gas and water and garbage outlets. The housekeeper throws the garbage into a specified receptacle and has no more care of it.

The testimony of every woman we met was that housekeeping was rendered far more easy in Pullman than in any other place. In fact the women were in love with the place: its purity of air, cleanliness of houses and streets, and lessened household burdens, are advantages over their former residences which brought out the heartiest expressions of approval. The women of the comparatively poor bear most of the drudgery of life, enjoy the least of

pleasures, and are most narrowly circumscribed, with little change in cares, scenes, or social surroundings. Pullman has really wrought a greater change for the women than for any other class of its dwellers.

All the works and shops are kept in the neatest possible order. The planing rooms are as free from dust as the street, blowers and exhaust fans taking away all shavings, dust and debris, as fast as it accumulates. One notices everywhere the endeavor to save time and space in the construction of goods. As an illustration of the science which enters into manufacture we need only cite the shops where freight cars are built. All the timber is taken in in lengths at one end and is never turned around until it finds its proper place in a completed freight car, being carried constantly from one process to another in a direct line from its reception at one end to its utilization at the other.

There are 1,520 brick tenements in houses and flats. The frontage of all the buildings extends along five miles of solid paved streets, and there are fourteen miles of railroad track laid for the use of those in the shops and the town. The buildings are of brick or stone.

INDUSTRIES.

The industries carried on and for which the city was built comprise the manufacture of Pullman Palace cars, and all classes of passenger and freight cars.

The Pullman car-wheel works, the Chicago Drop Forge Company's works, the Spanish-American curled hair factory, the Pullman Iron and Steel Company for the manufacture of iron and steel and of railroad spikes, and other works which are collateral to the principal business of the place, are located here.

The Allen paper car-wheel works, and the Union Foundry for making car wheels, car castings and architectural and general castings, have been conveniently located at Pullman.

Among the manufactures of the place should be mentioned that of brick. The Pullman company's yards turned out the past year about twenty millions of brick. The ice industry is also growing in importance. There is also an extensive carpenter shop by means of which the erection of dwellings, public buildings, etc., here and in other places may contribute to the industries of Pullman.

Gradually the manufacture of all the parts necessary to the construction of cars in every condition is being added to the enterprise of the town. A laundry is being established for cleansing the vast quantities of linen used in the palace car service which will give employment to women; it is the policy of the company to encourage the employment of women and young persons.

POPULATION.

The rapid growth of Pullman is exhibited in the following tabular statement of the several enumerations of the population that have been made :

Table of Nine Enumerations.

DATES OF TAKING THE CENSUS.	Families and Households.	Number of Men.....	Number of Women....	Number of Children..	Total Pop-ulation...
Jan. 1, 1881.....	1 family	1	2	1	4
March 1, 1881.....	8 families.....	31	14	12	57
June 1, 1881.....	102 " 	357	119	178	654
Feb. 1, 1882.....	321 households.....	1,168	445	471	2,084
March 8, 1883.....	705 " 	1,956	984	1,572	4,512
Aug. 15, 1883.....	910 " 	2,878	1,039	1,906	5,823
Nov. 20, 1883.....	1,048 " 	3,128	1,388	2,169	6,685
Sept. 4, 1884.....	1,295 " 	3,817	1,773	2,613	8,203
Sept. 30, 1884.....	1,361 " 	3,945	1,845	2,723	8,513

Of the population on September 30, 1884, 4,205 were born in the United States, 527 in the Canadas, 425 in England, 596 in Ireland, 170 in Scotland, 85 in France, 953 in Germany, 297 in Norway, 851 in Sweden, 212 in Denmark, 55 in Italy, 137 in other countries, such as Holland, Greece, and in Asia and Africa.

Omitting fractions, the religious preferences of the population may be expressed as follows :

Presbyterian.....	8 per cent
Congregational.....	2 "
Baptist.....	4 "
Methodist.....	8 "
Lutheran.....	24 "
Episcopalian.....	11 "
Roman Catholic.....	27 "
Dutch Reformed.....	2 "
Universalist.....	1 "
Swedenborgian.....	1 "

The remaining 12 per cent. of the population includes those of other beliefs but who expressed no religious preferences.

There are 75 pianos in the city, and the private libraries contain 30,000 volumes, while newspapers and magazines are freely taken at Pullman.

Of the 3,945 men here only about 900 are registered as voters (Oct. 29, 1884), and this is probably three-fourths of the voters residing in this city.

Nearly all the men accounted for on the population statistics are employed in the works of the company. Of course there are a few tradesmen and others. The total number employed in the works is about 4,000, but this includes some who live in surrounding vil-lages or who come down from Chicago.

WAGES, RENTS, AND LIVING EXPENSES.

The wages paid in the works at Pullman are somewhat higher than those paid for like work in other places. They have been adjusted on the hour basis, and from such basis piece wages have been arranged. The attempt to justly equalize and adjust wages has sometimes caused complaint amongst the workmen, and in one instance a strike of small moment. The strike took place among the freight car builders who formerly received \$18 for the construction of a car. Through a readjustment of the forces necessary to the preparation of the material of which the car was built, the price per car was reduced to \$12, four men being able to build a car in 8 hours, the result being the wage of \$3 per man for 8 hours work. Under this arrangement there was no cessation, no breaks in time; in the old arrangement when \$18 per car was paid, the men made long waits for material and did not earn any more, and often not as much, as at the present price per car, and with steady employment. But the first effect of the rearrangement of forces and consequent readjustment of prices was a strike of short duration. With this exception no strikes have occurred at Pullman city, and so far as we could learn there was no complaint regarding wages paid.

In the early days of the city, more men naturally were borne on the rolls than were actually necessary. In bringing the force employed to an economic basis, under which one man should be paid for one man's work, and only one man employed where only one was necessary, discharges or transfers took place, and this caused some complaint, but as the motto of Pullman is, "work for all, and all to work," that sentiment soon found lodgment and complaint ceased.

It costs quite as much to live in Pullman as in any other locality with which it can be reasonably compared. A two room tenement in a second story flat, but having all the conveniences of water and gas, and for sewage and garbage. rents for \$4 per month, and a three room tenement, similarly situated, for \$4.50 per month. Two room flats in small houses, large enough to accommodate five families, rent all the way from \$5 to \$8.50 per month, while two, three and four room tenements in large blocks rent from \$6.50 to \$10 per month. Four room tenements on the first, second, and third floors of three story flats, rent for from \$11 to \$13.50 per month, while four and five room tenements in two story flats may be had for \$14 and \$15 per month. Single five room cottages rent for from \$16 to \$19 per month, while single houses of from 6 to 9 rooms vary from \$22 to \$100 per month.

The average monthly rental per room in the whole city of 1,520 houses, having 6,485 rooms, is \$3.30. In the manufacturing towns of Massachusetts, the average rental per room is \$2.86 per month.

The rentals at Pullman are a little higher for the same number of rooms than in Chicago, but in Chicago the tenement would be in a narrow street or alley, while in Pullman it is on a broad avenue where no garbage is allowed to collect, where all houses have a back street entrance, where the sewage arrives at a farm in three hours' time from its being deposited, and where beauty, order, and cleanliness prevail, and fresh air abounds.

There are no taxes to be paid other than personal, and, when all the advantages which a tenant has at Pullman are taken into consideration as compared with his disadvantages in other places, the rent rates are in reality much lower.

The tenant is under no restrictions beyond those ordinarily contained in a lease, except that he must leave his tenement at ten day's notice, or he can give the same notice and quit. This short limitation has been established in order that no liquor saloons, objectionable houses, or anything likely to disturb the *morals* of the place, can become fastened on the community.

All the houses in Pullman city are owned by the company. This policy has been considered the best in the early years of the city in order that a foundation may be securely laid for a community of good habits and good order.

The men are employed without restriction. There are no conditions laid upon their freedom; they are paid fortnightly, and they expend their wages when and where they see fit, their rent being charged against their wages. This, at first, caused some complaint, but the system is now generally liked, for when wages are paid there is no bother about rent bills, and the wife and the children know that the home is secure. Repairs, if due to the carelessness or negligence of the tenant, are made by the company at the lowest possible expense, and charged against the tenant. Of course, the company, like all landlords, expects to keep the houses in tenantable condition.

There has been some friction in this matter, but as the policy of the company becomes more generally and better understood, the complaint ceases.

SCHOOLS, CHURCHES, AMUSEMENTS, ETC.

The company has erected a very fine school building having fourteen commodious rooms, which now contain about 900 pupils. The schools are under the charge of the school authorities of Hyde Park. They are in a prosperous condition and well accommodate the school population.

There are two or three religious societies and the beautiful church which has been built by the company, while occupied by any sect or by anybody that wishes to hold meetings there, is awaiting the occupancy of some society that chooses to lease it at a fair rental.

In the arcade is to be found a library handsomely fitted and well stocked with books.

The company have also provided a gymnasium, an amphitheatre for games, base ball grounds, and in the arcade is one of the most æsthetic theatres in the country.

All these influences are gradually elevating the society of Pullman city, and their influence is largely felt.

There is but little crime or drunkenness in Pullman, and one policeman, an officer appointed by the authorities of Hyde Park, constitutes the police force for 8,500 people. In two years but 15

arrests have been made; there is no general beer drinking, for there are no liquor saloons in the town. The hotel provides its guests with liquors, but under orderly restrictions.

There is no pauperism; two or three families, where the head had been taken away, or where some accident or misfortune had rendered it necessary, have been aided; but pauperism, as such, does not exist at Pullman.

HEALTH, ACCIDENTS, ETC.

In a paper entitled "Pullman From a State Medicine Point of View," by Oscar C. DeWolf, M. D., commissioner of health, Chicago, read before the American Public Health Association at Detroit, at the session of November, 1883, we find the following significant statements:

"The town has now 7,500 inhabitants, and its average annual population has been 5,000. During the two years of its existence 69 persons died, its death-rate being, therefore, 6.9 per 1,000. The death-rate of the rest of Hyde Park (a village of which Pullman is legally a part, and which includes much rural territory) is 15 per 1,000. The causes of death were,—

Zymotic diseases.....	23
Constitutional diseases.....	3
Local diseases.....	22
Developmental diseases.....	3
Violence.....	17
Unknown.....	1
	<hr/>
	69

The large percentage of deaths by violence is due to the fact that Pullman is the center of numerous railroads, and to the casualties attendant on its manufactures. The deaths under five years of age were thirty. Of these there died from zymotic diseases twelve, of which there died from

Cholera infantum.....	6
Diphtheria.....	3
Scarlatina.....	2
(Toy pistol) Septicæmia.....	1
	<hr/>
	12

This favorable showing speaks for itself."

Dr. De Wolf's statement had reference to the two earlier years of the existence of Pullman. The last year presents as good a record.

From Nov. 1st, 1883, to Nov. 1st, 1884, there were 53 deaths in Pullman. Hence, there was an average of 7.599 deaths per year for every 1,000 of population. For three years Pullman has had this low death rate. The average for American cities is over three times this number, and the average annual death rate of the world is 32 out of every 1,000 of population. The average death rate in the City of Mexico is 56 per thousand, or eight times the rate in

Pullman. Of these 53 deaths, 2 were of persons over 50 years of age, 2 of persons between 40 and 50, 2 of persons between 30 and 40, 4 of persons between 20 and 30, 4 of persons between 10 and 20, none of persons between 5 and 10. Eleven were of children over 1 and under 5, while 28, or more than one half the deaths, were of children under one year of age. The healthful conditions here are unequaled by those in any city in the world. The lowness of the death rate is remarkable. With one quarter of the physicians that ordinarily administer to a population of this size, Pullman has only a little more than one quarter of the deaths usual in the same number of people.

The company has adopted a very broad and liberal policy relative to compensation for accidents received during or by means of work in the shops. At present it is contemplated to secure the insurance of all the employes of the company against accidents by the men taking out policies in worthy companies, from which insurance, in case of disability, they would receive \$1 per day, Pullman's Palace Car Company guaranteeing to pay an additional \$1 per day. This arrangement is perfectly just and must result in putting the men on the best possible basis as regards compensation for accidents. It is generous on the part of the company employing them because it is not by law liable for damages in case of accident.

MORAL INFLUENCE.

Dr. De Wolf in the report already cited, in speaking of the influence of Pullman city on its inhabitants, says,—

“The change in population from emigration amounts to one per cent *per annum*. These emigrants go forth educated in a way that entitles them to be called sanitary missionaries. There are no special requirements to induce change in the habits of people taking up residence in Pullman, but it is a matter of common observation that insanitary habits—such as making yard cesspools, etc.,—soon vanish under the silent but powerful influence of public opinion as shown in the habits of neighbors. Families with dirty, broken furniture soon find it convenient to obtain furniture more in accord with their surroundings. Men who are accustomed to lounge on their front stoops, smoking pipes, and in dirty shirt-sleeves, soon dress and act more in accordance with the requirements of society. All this is accomplished by the silent educational influence of their surroundings. There are no saloons in the town, and one great element of debasement is thus avoided.”

Dr. De Wolf has spoken the truth, and another year's experience at Pullman has intensified the force of all he has said.

When Pullman city was first founded, many families came there who had been in the habit of living in a filthy, shiftless way. They came from tenements that were not neat, and that had no pleasant surroundings. Their presence in the new city was like a rubbish heap in a garden—out of place and unseemly. One may contemplate the feelings of Mr. Pullman on witnessing these evidences of unappreciation of all the beauty he brought into existence, and it would have been natural for him and his coadjutors to have indulged in some fault-finding.

On the other hand, the untidy families were left to themselves. As they walked about the streets of Pullman city and witnessed everywhere orderly ways, well kept lawns, tidy dwellings, clean workshops, and could turn nowhere without meeting order, they naturally began to make comparisons, and such comparisons have resulted in setting their own houses to rights. This is the influence of order and cleanliness everywhere. So the moral influence of Pullman is an ever present lesson to every family that takes up its abode there. This perfect order and the cleanliness which comes of it is often felt as a restraint upon those who have been brought up under disorder and in uncleanness, and sometimes causes a sigh for the looser ways and the consequent looser morals of other communities. Such people do not find the air of Pullman city congenial, and no obstacle is thrown in their way should they desire to leave.

These considerations make it easy to see how the company secures the best mechanics.

GENERAL CONSIDERATIONS.

We have given the history and the facts relating to Pullman city. There is a deeper side which requires a closer study.

The principle on which Pullman city is founded, and on which its success largely depends, is that in all industrial enterprises business should be so conducted and arranged as to be profitable to each of the great forces, labor and capital.

Mr. Pullman does not believe that a great manufacturing concern can meet with the highest economic and moral success where the profit is unduly large to capital, with no corresponding benefit to labor. The mutual benefit which comes from well adjusted forces is to his mind what brings the best success.

On the other hand, he has made no claim to being a philanthropist; the sentiment prevails in his city that true philanthropy is based on business principles and should net a fair return for efforts made.

Promiscuous charity has no place in the establishment of Pullman. Personally, the president of the company makes the favorable conditions, and, having made them, he then concerns himself chiefly in supplying his people with steady employment. The art interests, the moral interests, the social and human interests, with favorable conditions supplied, take most excellent care of themselves. Incidentally his competent staff have an eye to all interests.

Mr. Pullman is no dreamer; he has studied the plans of socialists and reformers and the schemes of philosophers for the benefit of humanity.

Beginning at the bottom rung of the ladder, and therefore familiar with the wants and aspirations of the workers of society, he has risen by the force of his own character and genius to his present position; he does not care to leave the world and look back upon his action and see that he has only offered a glass of water to the sufferer by the wayside, but he wishes to feel that he has

furnished a desert with wells of living water that all may come and drink through all time. So he commenced with the foundation idea of furnishing his workmen with model homes, and supplying them with abundant work with good wages, feeling that simply better conditions would make better men and his city become a permanent benefaction.

He saw great amounts of money being used in speculative schemes, in stock operations, and in all the questionable ways which men take to increase their capital. He saw the energy, the enthusiasm, and the ability which entered into such operations. He could see no reason why all these elements could not be diverted into channels whereby the public should be the gainer and not the loser by great money operations. If capital could be invested in great industrial schemes like Pullman, instead of in stock operations, but in such a way as to net a handsome profit to capital and thereby attract it, then not only would capital be safely, securely, and profitably invested, but it would bring even returns without the feverishness of the other method, and the great benefits which would come to the workmen, and thus directly to society itself, would be a positive and absolute gain.

Mr. Pullman's plans did not stop with the founding of an industrial city, but they contemplated establishing alongside great mechanical works where all the science of mechanics is practically applied in every day labor, technical schools where the young might learn the theory and see the application of great mechanical powers. There could not be a better location in the whole country for the highest development of mechanical skill. With technical schools successfully established Mr. Pullman saw far enough in the future to contemplate a great university.

The great advantages of the geographical location of Pullman city warranted this vast plan; being the center of the United States commercially, and not far from the centre geographically, he saw no reason why, with scientific works established and with well equipped technical schools, Pullman city should not only teach the nation the way to build up a magnificent class of workmen living under happy and moral conditions, but furnish the country with the most skillful foremen and leading mechanics. To accomplish successfully what Mr. Pullman has undertaken is to carry the world, so far as such men can reach it, to a higher level in civilization.

To do this it was necessary for him to open new avenues for the investment of capital, investments, which as we have said, not only return ample interest in the form of money dividends, but make a grander return in the form of happy homes, and happy hearts. Men must grapple with such enterprises in the belief that the life of the laborer should be something more than a weary round of hard toil; and in the belief that in aiding him to help himself and become a better man, a better brother, a better father, and a better citizen, they are rendering him the best possible service, and in the belief that individual charity, that is merely giving a man something, often does more harm than good.

The general management of Pullman of course partakes of the

sentiment of its founder, a broad, comprehensive humanitarian, as we have said, without restrictions upon labor, but, so far as we could see, always with justice. For instance, discharges are made with a view of being just; if one of two men must be discharged, other things being equal, the single man must leave and allow the married man to remain; or, if one of two men must be discharged, and each has a family, and one resides away from Pullman, and the other at Pullman, the resident is to be preferred.

All such matters give rise to complaints through superficial consideration, but the even handed justice which prevails is shown by an examination of all sides of the question.

After very careful investigation and the study of Pullman city from the standpoint of the manager, and that of the laborer, the mechanic, the physician, the priest, and from all points of view that we could muster, the question naturally arose, as it might arise in all men's minds who examine such institutions, what are the weak points in the plan? Superficially, we could see at once that the workmen had no status as an owner of his home, but we could see that in the early years of Pullman city, if he had such a status it might be the means of his ruin financially. The company owns everything, manages everything; the employés are tenants of the company. This feature will be for some time longer the chief strength of the place, but in this strength lies its weakness. This feature is its strength so long as the industries of Pullman city belong to one great branch, the manufacture of one thing, or the things auxiliary to that manufacture. Now, should the industry of car building collapse or stagnate to any degree, the tenant employé is at liberty to remove at once; he has to give but ten days' notice to vacate his tenancy. He is free to take up his abode where he chooses, without the fear or the fact of any real property going down on his hands. But Mr. Pullman and his company have contemplated this very state of affairs, and are doing all in their power to bring in a diversity of manufactures so that if one kind of goods are not produced another will be. The industrial operations of the place, through Mr. Pullman's exertions, are being extended to the erection of houses, public works and public buildings. The manufacture of brick, the capacity of all the works to turn out finish, and all the wood materials of buildings, and the other features mentioned under "Industries," have given the place a diversity of employment and of industry, which is leading it into strong and permanent industrial conditions. The result of these conditions, should the railroads of the country operate their own palace cars, will preserve the industrial integrity of Pullman city. With these advantages, or, when these advantages come, the tenant employé at Pullman may become the owner of his home. For this purpose a large tract of land has been set aside, and when the time comes will be sold in small lots to the workman, his house built at cost, and he allowed to pay for it on easy terms; then, what would now be a weakness at Pullman will become its strength, and the plan of the city which has been projected on the basis of a population of 100,000 will meet its great success, and these two weak points, the lack of diversified industry and the lack of home ownership, will no longer exist.

To enable this feature of the purchase of homes to be carried out, a savings bank has been established having deposits to the amount of about \$100,000. This money is held subject to immediate call whenever the plans are perfected for the purchase of homes, and will be used in loans to the workingmen. It is invested on call so as to be perfectly available whenever wanted. The deposits are entirely the savings of the workingmen of Pullman, and made during the period in which the bank has existed.

The Pullman establishment must, we think, impress the most casual observer as rare enough to be remarkable, and good enough to be commendable. Even superficially it presents a novelty and attractiveness which in themselves command approbation, but the closer scrutiny which we were permitted to give it developed the fact that its excellence was by no means superficial, that it is not only as good as it looks, but better, and that every promise has been made more than good.

Physically, it is better, for the reason that its underground system is as complete and costly as the improvements upon the surface, so that there is not only a justification for the fair exterior, but a guarantee of its permanence, and of the welfare of the workers and dwellers in the town.

We found the *morale* of the place even better than we expected. Merely external appearances may not clearly indicate social conditions nor the motive and the policy of the management in such an establishment, yet, if the commissioners did not find that the whole plan was conceived and executed in a spirit of broad and unostentatious philanthropy, our observations and conclusions were at fault throughout. We must regard our investigation as having generously confirmed the good impressions of all those who were predisposed in favor of the Pullman enterprise, and it must disarm those who may have felt some degree of prejudice against it.

In order to arrive at any just estimate of the credit due the projectors of the industrial community under investigation, we are in duty bound to recognize the fact that the company merely proposed to manufacture railway cars for profit; no obligation rested upon them to enter into any scheme of general beneficence or to jeopardize their financial interests by a costly experiment in the interests of their employes. For the initial disposition in this latter direction, however, they, and all men like them, deserve praise and encouragement. Having determined that such an experiment might justify itself in a commercial sense as well as on humanitarian grounds, it was still in their option to provide merely comfortable tenements for their men, plain structures for shops, and ordinary facilities for cleanliness and sanitation, and for these even, they would have deserved well, and yet they go much broader and deeper, and decide upon the most perfect methods of drainage, for which their site afforded no facilities, and for a system of gas and water distribution to every house and apartment. They construct permanent streets and an elaborate system of drainage. Not content with plain buildings they exhaust the architect's skill in designing the greatest variety of forms for dwellings suited in size and appurtenance to all grades of employes; they erect costly and beautiful

buildings for public uses, the church, library, and market house, public halls, theatre, savingsbank, and stores; they furnish a park for field sports, amphitheatre for games, and every facility for recreation, physical and mental; and the place is neatly and attractively ornamented with lawns, shade trees, artificial lakes, fountains and flowers. In brief, they stop at nothing short of a model establishment, constructed upon plans which are the result of the widest experience and the best observation for which modern life affords opportunities.

While all this is done at a considerable outlay of money, which, to the ordinary manufacturer, might seem reckless, and commercially at least unjustifiable, the conviction grew upon us, as the details of this magnificent work became understood, that although no such motive has ever been proclaimed, there was really a noble and broad inspiration in the original conception of the undertaking beyond that of merely making the greatest possible amount of money, beyond that of mere personal glorification; an inspiration looking to an actual elevation of the standard of life among the working people who might be fortunate enough to be identified with it. Nothing could be more laudable from our point of view than this, and the Pullman company deserve well of their employès and of all men, not only for what they have accomplished for themselves and their own, but for the conspicuous example they have given the world of the nobler uses of great wealth. It is our view of the case, moreover, that even if they had attempted and accomplished much less, or even had made great mistakes, they would still deserve commendation for their manifest disposition to recognize the welfare of their employès as of the first concern to themselves. To the growth of such a sentiment among employers, and the practice of it in whatever degree circumstances may permit in smaller establishments, must we look for the real alleviation of the burdens which labor imposes upon those who live by it.

As to the question of earnings in the various grades of employment, and the cost of living within as compared with that outside the community, we are not, as we have already indicated, disposed to insist that the one be greater, and the other less, then elsewhere in order to demonstrate the advantages of the place. We should rather say that were there to be an actual money balance, or not, at the end of the year in favor of the average workman at Pullman, there must be a balance in his favor in all those things which go to make up comfortable and healthful living, in opportunities for the education of children, and their protection from dangerous influences; in the incentives to self-respect and self-culture, and in all the social, moral, and sanitary influences which surround the life of every one at Pullman.

If the workman at Pullman lives in a "gilded cage," we must congratulate him on its being so handsomely gilded; the average workman does not have his cage gilded. That there is any cage or imprisonment about it is not true, save in the sense that all men are circumscribed by the conditions with which they surround themselves, and imprisoned by the daily duties of life.

It is quite possible that the Pullman community has been organized and developed thus far on a plan as comprehensive as commercial prudence permits, but when the experiment as now fairly outlined shall have become an established success, it would be gratifying to see certain additional features considered, and if feasible introduced for practical test.

To make Pullman the ideal establishment of the theorists, in addition to the option of purchasing homes and the strength which must come from diversified industry, one would naturally expect that when the enterprise shall have survived adversity as well as prosperity, and the wise and beneficent policy now being tested shall have borne its fruit in a permanent community of intelligent and prosperous workingmen, it may then be found possible to advance them to a share of the profits of the business itself. However this may be, we think we are justified in the belief that, as long as the present management, or the spirit of that management exists, the beneficent features of this most progressive industrial establishment will be extended as rapidly as circumstances may ripen for them.

Let the model manufactory and the industrial community of Pullman city be commended as they deserve for whatever they are or what they promise to be. Let them be held up to the manufacturers and employers of men throughout the country as worthy of their emulation. Let Mr. Pullman and his coadjutors be assured of the good wishes of all those who seek the advancement of their kind.

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